# CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, April 15, 1909.

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## CONSTRUCTION NEWS.

### Plans and Specifications on File.

(* *denotes that this work is advertised in Engineering News.*)

The following plans (P.) and Specifications (S.) are on file and may be seen at office of The Engineering News Publishing Co., 220 Broadway, New York:

| Bids close. | Work. | See issue. |
|---|---|---|
| 4-16* | Crematory (Garbage), West Point, N. Y. ..... (S.) | 4- 1 |
| 4-17 | Hospital, New York..... (S.) | 3-18 |
| 4-17 | Building, New York..... (S.) | 4- 1 |
| 4-19 | Pavement, Fulton, N. Y..... (S.) | 3-25 |
| 4-19* | Lock gates, Nashville, Tenn. (S.) | 3-18 |
| 4-20* | Sewers, Auburn, N. Y..... (S.) | 3-25 |
| 4-20 | Sidewalks, Mount Healthy, Ohio. ..... (S.) | 4- 8 |
| 4-21* | Sewer, mains, Birmingham, Ala. (P. & S.) | 3-25 |
| 4-24 | Roof (Buildings), New York..(S.) | 4- 1 |
| 4-24 | Hospital, Bremerton, Wash..(S.) | 3-25 |
| 4-24* | Bridge, Cedar Rapids, Iowa. (P. & S.) | 4- 8 |
| 4-26 | Buildings, North Chicago, Ill.(S.) | 3-25 |
| 4-26* | Pass, Wheeling, W. Va..(P.& S.) | 4- 1 |
| 4-27* | Rebuilding bridge, Newburyport, Mass. ..... (S.) | 4- 8 |
| 5- 5* | Dredging, New London, Conn.(S.) | 4- 8 |
| 5- 8 | Seawall, dredging, Norfolk, Va. ..... (S.) | 4- 8 |
| 5-15 | Hospital bldgs., Wash., D. C.(S.) | 4-15 |
| 5-22 | Dry dock, Hawaii..... (S.) | 3-25 |
| 5-26* | Lock, Vicksburg, Miss..... (S.) | 4- 1 |
| 6- 1* | Pipe and specials, Philippines. ..... (P. & S.) | 3-25 |

### List of Contracts Pending.

#### LIGHT, HEAT AND POWER PLANTS.

4-16 Electric equip., New York..... 4-15
4-19 Lighting, South Omaha, Neb.... 4-15
4-19 Wiring, Seattle, Wash..... 4- 1
4-19 Elec. equipment, New York ..... 4- 8
4-23* Conduit, etc., Newbern, N. C.... 4- 1
4-24* Light plant, Ft. D. A. Russell, Wyo. ..... 4- 1
4-26* Engines, generators, etc., Boston, Mass..... 4- 1
4-26* Power plant, Wilkes-Barre, Pa.. 3-25
4-30 Cable, Toronto, Ont..... 4- 8
4-30* Gas well, Medicine Hat, Alta.... 4- 8
4-30* Lamp standards, etc., Wash., D.C. 4- 8
5- 4 Power plant, etc., Greenville, N.C. 4-15
5- 5 Steam mains, Danville, Ill..... 4- 1
5- 8 Wiring, Ft. Bayard, N. Mex..... 4-15

#### BRIDGES.

4-16 Bridge, Northbend, Ohio..... 4- 8
4-16 Bridge work, Wilkes-Barre, Pa.. 4- 8
4-16 Bridges, etc., Logan, Ohio..... 4- 1
4-18 Bridge, South Renovo, Pa..... 4- 8
4-17 Bridge, Greenfield, Ind..... 4- 8
4-19 Bridge girder, Zanesville, Ohio... 4- 1
4-19 Bridges, El Centro, Cal..... 4-15
4-19 Bridge work, Hokendauqua, Pa.. 4-15
4-20 Bridges, Lincoln, Neb..... 4- 1
4-20 Substructures, etc., Marietta, O. 4- 8
4-20 Bridge, Hamilton, Ohio..... 4- 8
4-21 Bridge, Rogersville, Tenn..... 4-15
4-22 Bridges, Pierce, Neb..... 4-15
4-24 Bridges, etc., Richmond, Ind.... 4-15
4-24* Bridge, Cedar Rapids, Iowa..... 4- 8
4-26* Bridge, Norfolk, Va. ..... 4-15
4-27 Rebuilding bridge, Newburyport, Mass..... 4- 8
5- 1 Bridge, Toledo, Ore. ..... 4-15
5- 4 Bridges, New Hampton, Iowa.... 4-15
5- 4 Bridge, Savannah, Ga..... 3-25

#### BUILDINGS.

4-16 Engine house, New York ..... 4- 8
4-16 Laundry (Mfg. Pl) Columbus, O. 4- 1
4-16 Refrig. plant, Hartwell, O. (Mfg. Pl.)..... 4- 8
4-17 Building, New York..... 4- 1
4-17 Hospital, New York..... 3-18
4-17 Building, Portland, Ore..... 4-15
4-17 Steel work, Washington, D. C.... 4-15
4-19 Storehouse, Riverside, Cal..... 4-15
4-19 Post-office, Sumter, S. C..... 3-18
4-19 Heating, etc., New York ..... 4- 8
4-20* Post-office, Kearney, Neb..... 3-18
4-20* Quarters, Ft. Morgan, Ala..... 3-25
4-20 Storehouses, Philadelphia, Pa.... 4- 1
4-20 Court-house, Columbia, Ind..... 4- 8
4-20 City Hall, Decatur, Ind..... 4- 8
4-20 Court-house, Fitzgerald, Ga..... 4-15
4-20 Municipal bldg., Mt. Pleasant, Pa. 4-15
4-21 Fire houses, New York..... 4-15
4-21 Post-office, Manistee, Mich..... 3-25
4-22 Schools, Canton, Ohio..... 4- 1
4-22 Post-office, Willimantic, Conn.... 3-25
4-23 Cold storage plant, Delaware, O. (Mfg. Pl.)..... 4- 8
4-24 Roof, New York..... 4- 1
4-24 Hospital, Bremerton, Wash..... 3-25
4-24 School, Montreal, Que..... 4-15
4-26 Buildings, North Chicago, Ill.... 3-11
4-26* Post-office, Barre, Vt. ..... 3-25
4-26 Building, Schenectady, N. Y..... 4-26
4-26 Schools, New York ..... 4-15
4-26 Engine house, New York..... 4-15
4-27 Stations, etc., Ottawa, Ont..... 4-15
4-29 Quarters, Ft. Missoula, Mont.... 4- 8
4-28* Post-office, Kewanee, Ill..... 4- 1
4-28 Armory, New York..... 4-15
5- 1 Plans, Vancouver, B. C..... 4-15
5- 1 Barracks, Columbus Barracks, O. 4-15
5- 1* Post-office, Michigan City, Ind... 4- 1
5- 3 Post-office, Lake Charles, La.... 4- 1
5- 3 Refrig. plant, Leavenworth, Kan. (Mfg. Pl.)..... 4-15
5-10 Post-office, Yazoo City, Miss.... 4- 8
5-11* Sheds, New Orleans, La..... 4-15
5-12* Heating, etc., Danville, Ill..... 4-15
5-12 Plumbing, etc., Danville, Ill..... 4-15
5-12* Post-office, Danville, Ill..... 4- 8
5-15* Bldg. materials, West Point, N.Y. 4-15
5-15 Naval hospital, Wash., D. C.... 4-15

#### WATER-WORKS.

4-15 Hydrants, New York ..... 4-15
4-16* Water pipe, Warwick, N. Y..... 4- 8
4-16 Pumping system, Platteville, Wis. 4-15
4-17 Water pipe, East Cleveland, Ohio. 4- 8
4-19 Water system, Faunsdale, Ala... 4- 8
4-19 Reservoir, Ogden, Utah..... 4- 8
4-19 Well, Bernidji, Minn. ..... 4-15
4-20 Water tower, Benson, Minn. ..... 4-15
4-20 Pumping station, St. Louis, Mo.. 4- 8
4-20 Water-works, Saint Henry, Ohio. 4- 1
4-20* Water-pipe, McPherson, Kan.... 3-25
4-21* Cast-iron pipe, Rome, N. Y..... 4- 1
4-21 Pump, etc., Panama (U. S. Poss.) 4- 8
4-22 Water-works, Put-in-Bay, Ohio.. 4- 1
4-22 Pump, Lorain, Ohio ..... 4-15
4-22 Water meters, Elyria, Ohio ..... 4-15
4-22 Dam, etc., Hazelton, Pa. ..... 4-15
4-23 Water mains, Salt Lake City, Utah ..... 4-15
4-26 Water-works, Sikeston, Mo..... 4- 8
4-27* Brass goods, New Orleans, La... 4- 1
4-29 Lake construction, Altoona, Pa.. 4-15
5- 5 Pumping machinery, Petaluma, Cal. ..... 2-11
6- 1* Pipe and specials, Philippines (U. S. Poss.) ..... 3-25

#### SEWERS.

4-16 Sewer, Waukegan, Ill..... 4- 8
4-16* Sewer, Louisville, Ky..... 4- 8
4-17 Sewers, Oshkosh, Wis..... 3-25
4-17 Disposal plant, Cheswick, Pa..... 4-15
4-19 Sewers, Burlington, Iowa ..... 4-15
4-19 Sewers, Pittsburg, Pa. ..... 4-15
4-19* Sewers, Erie, Pa..... 4- 8
4-19 Sewer, Milburn, N. J..... 4- 8
4-20* Sewers, Auburn, N. Y..... 3-25
4-20 Sewers, etc., West Allis, Wis.... 4-15
4-20 Sewer, Indianapolis, Ind. ..... 4-15
4-20 Sewers, New York ..... 4-15
4-20 Sewers, New Brighton, N. Y..... 4-15
4-21* Sewer mains, Birmingham, Ala. 3-25
4-21 Sewer pipe drain, Columbus, O.. 4- 1
4-22 Sewering, Youngstown, Ohio.... 4-15
4-23 Sewers, Salt Lake City, Utah.... 4-15
4-23 Storm sewer, Enid, Okla ..... 4-15
4-26 Sewers, Washington, D. C..... 4- 1
4-30 Sewer pipe line, Gloversville, N. Y. ..... 4-15
5- 3 Sewers, Newburgh, Ohio ..... 4-15
5- 4 Sewers, Janesville, Wis. ..... 4-15
5-18* Sewer, Syracuse, N. Y. ..... 4-15

#### STREETS AND ROADS.

4-16* Pavement, Tomah, Wis..... 4- 8
4-17 Grading, etc., Cleveland, Ohio.. 3-25
4-17 Paving, La Crosse, Wis..... 4- 1
4-17 Paving, Racine, Wis. ..... 4-15
4-19* Pavement, McAlester, Okla. .... 4-15
4-19 Pavement, Wallace, Idaho ..... 4-15
4-19 Macadam, Jefferson, Ohio ..... 4-15
4-19 Grading, etc., Pittsburg, Pa. .... 4-15
4-19 Turnpike, Concord, Ky. ..... 4-15
4-19 Pavement, Fulton, N. Y..... 3-25
4-19 Paving, Montgomery, Ala..... 4- 8
4-20 Sidewalks, Mount Healthy, O.... 4- 8
4-20* Stone crushers, etc. Saskatoon, Sask. ..... 4- 1
4-20 Pavement, etc., Gloversville, N.Y. 4-15
4-20 Grading, Zelienople, Pa. ..... 4-15
4-20 Paving, Wheeling, W. Va. ..... 4-15
4-21* Road roller, Aberdeen, Wash. .... 4-15
4-21 Paving, Des Moines, Iowa ..... 4-15
4-21 Grading, etc., Cleveland, Ohio.... 4-15
4-21 Regulating, etc., Brooklyn, N. Y.. 4- 8
4-21 Curb and gutter, Roanoke, Va.... 4- 8
4-22* Paving brick, Grand Rapids, Mich. 4-15
4-23 Sidewalks, Salt Lake City, Utah.. 4-15
4-23 Paving, Harrison, N. Y. ..... 4-15
4-23 Road imprt., Cincinnati, Ohio.... 4-15
4-24 Grading, etc., Cleveland, Ohio... 4-15
4-26 Grading, etc., Boston, Mass. .... 4-15
4-26 Macadamizing, etc., Ashland, O.. 4-15
4-26 Surfacing, etc., Boston, Mass.... 4-15
4-27 Street imprt., St. Bernard, Ohio. 4- 8
4-28 Roads, Anderson, Ind. ..... 4- 8
4-28 Regulating, Brooklyn, N. Y..... 4-15
4-29 Macadamizing, Hackettstown, N.J. 4-15
4-30 Roads, Fowler, Ind. ..... 4-15
4-30 Road imprt., Cincinnati, Ohio... 4-15
5- 3 Roads, Vernon, Ind. ..... 4-15
5- 3 Grading, etc., Chardon, Ohio.... 4-15
5- 3 Road, Hartford City, Ind..... 4- 1
5- 4 Roads, Bloomfield, Ind. ..... 4-15
5- 4 Road, Monticello, Ind. ..... 4-15
5- 5 Macadamizing, etc., Columbus, O. 4-15
5- 7 Road imprt., Mount Gilead, Ohio. 4-15
5- 7 Road, Fowler, Ind. ..... 4-15

#### MISCELLANEOUS.

4-16 Fire-alarm system, New York.. 4- 8
4-16 Ditch, Mantorville, Minn. ..... 4- 8
4-16 Land sprinkling (garbage), New York ..... 4- 8
4-16 Cement, Brandon, Man ..... 3-18
4-16 Mech. equipment, New York..... 4- 1
4-16* Crematory (Garbage), West Point, N. Y. ..... 4- 1
4-16 Castings, Springfield, Mass..... 4- 8
4-16 Dock, Chicago, Ill. ..... 4-15
4-17 Ditch, La Fayette, Ind..... 4-15
4-17* Tile ditches, Atkinson, Ill..... 4- 1
4-17 Memorial, Gettysburg, Pa..... 3-25
4-17* Lumber, Nashville, Tenn..... 3-18
4-19* Lock gates, Nashville, Tenn..... 3-18
4-19* Wire fence, Fort Meade, S. Dak. 3-25
4-19 Supplies, Panama..(U. S. Poss.) 4- 8
4-19 Carts (garbage), New York..... 4- 8
4-19 Automobiles, Hartford, Conn..... 4-15
4-20 Vessel repairs, Cincinnati, Ohio.. 4-15
4-20 Cement, New York ..... 4- 8
4-20* Dam, Detroit, Mich..... 4- 8
4-20 Dam, Sault Ste. Marie, Mich.. 4- 1
4-22* Hose, packing, Panama (U. S. Poss.) ..... 4- 1
4-22 Wall, Grand Rapids, Mich..... 4-15
4-22 Limestone, etc., New York..... 4-15
4-22* Cement, Wheeling, W. Va..... 4- 8
4-23* Removing wreck, New York..... 3-25
4-23* Lock, Cincinnati, Ohio ..... 3-25
4-24 Drain, Farmersville, Ill..... 4-15
4-26* Pass, Wheeling, W. Va..... 4- 1
4-27 Wharf, Prince Rupert, B. C..... 4-15
4-30 Cable, Toronto, Ont. ..... 4- 8
4-30* Bronze railings, Wash., D. C.... 4- 8
5- 1 Fencing, etc., Lynchburgh, Tex. 4- 8
5- 1* Concrete walls, Louisville, Ky.. 4- 8
5- 1* Road machinery, Hawaii (U. S. Poss.) ..... 3-25
5- 3* Concrete wall, Charleston, S. C.. 4- 1
5- 5* Dredging, New London, Conn.... 4- 8
5- 6* Removing wreck, New York..... 4- 8
5- 5* Channel, Chicago, Ill. ..... 4-15
5- 7* Dredging, Wilmington, Del..... 4-15
5- 8* Excavation, Portland, Me..... 4-15
5- 8* Dipper dredge, Nashville, Tenn.. 4- 8
5- 8 Seawall, dredging, Norfolk, Va.. 4- 8
5-11* Ry. work, Phila. & Reading (Rys.) 4-15
5-14* Cement, Hawaii (U. S. Poss.)..... 4- 1
5-14* Cement, Wheeling, W. Va..... 4-15
5-22 Dry dock, Hawaii (U. S. Poss.).. 3-25
5-26* Lock, Vicksburg, Miss..... 4- 1

#### EXAMINATIONS.

4-21 Tracer, Panama ..... 3-25
4-21 Asst. Elec. Engr., Wash, D. C.. 3-25
4-21 Asst. Chemist, Wash., D. C..... 3-25
4-21 Asst. Physicist, Wash., D. C.... 3-25
4-21 Asst. Photographer, Wash., D. C. 3-25
4-26 Lab. Asst., New York..... 4-15
4-28 Physiologist, Wash., D. C..... 4-15
5- 1 Arch. Designer, Albany, N. Y... 4-15
5- 1 Appraiser, Albany, N. Y..... 4-15
5- 5 Inspector, Wash., D. C..... 4-15
5- 5 Mech. Asst., Wash., D. C..... 4-15
5- 5 Asst. Chemist, Wash., D. C.... 4-15
5- 5 Draftsman, San Francisco, Cal.. 4-15
5-19 Arch. Draftsman, Wash., D. C.. 4-15

## RAILWAYS.

(* *denotes that this work is advertised in Engineering News.*)

CENTRAL OF GEORGIA.—In the issue of March 18 it was stated that this "company plans, according to press reports, a trunk line from the east to the southwest, by the extension of its line, about 250 miles, from Andalusia, Ala., to the Illinois Central above New Orleans; the extension of the Florida line to Pensacola, Fla.; the extension of the Alexander City (Ala.) line to Union City and an alliance with the Seaboard Air Line. The company also will extend its line from Florala to Pensacola, Fla., and from Andalusia to Florala, and another line will be built from Alexander City to Union City." C. K. Lawrence, Savannah, Ga., Ch. Engr., advises us under date of April 6 that no extension from Andalusia is contemplated.

CHICAGO & ALTON.—We are informed officially that a contract has been awarded to OLIVER BROS. & CALLAWAY, of Knoxville, Tenn., for the grading and all the bridge work (except the steel construction) for 46 miles of second track and grade reduction work on the main line between Chicago and St. Louis. The 27 miles below Springfield is under contract to be completed by Aug. 15, 1909, and that between Atlanta and Bloomington by Oct. 15, 1909. An effort will be made to get the work completed so that the winter business can be done largely over the new track. Of this work, 19 miles lie between Bloomington and Atlanta, and 27 miles between Springfield and Nilwood. Nilwood is at the southern edge of the Illinois coal fields, and when this work is completed the railway will have a double-track road all the way from the southern edge of the coal fields to Chicago, except for a distance of four miles from Lawndale to Atlanta, where the staff system of signaling is in use. The road south of Bloomington is now operated on the northbound grade of 26 ft. to the mile, and after the work for which the contract is let is completed, it will be able to operate on a grade of 0.03% or 16 ft. to the mile. This means that after the work is completed the road will be enabled to haul with its heaviest engines train loads of 3,200 tons from the coal fields to Chicago or to Peoria. The work that is just contracted for is very light in grading and bridging below Springfield, but is reasonably heavy work in the vicinity of Bloomington; nearly all of the last is steam shovel work. The bridging on the 19 miles between Springfield and Atlanta was completed more than two years ago, when the work was under contract and was suspended on account of lack of funds. The second track work south of Springfield is made necessary very largely by the increase in traffic, and also in part by the operation of the 16-hour law.

The railway is arranging to do a considerable amount of construction and betterment work during the coming season. The budget for the year is said to include (besides the second track and grade reduction work above mentioned) the construction of yards at South Joliet, the track elevation through Joliet, considerable track elevation in Chicago, and the reconstruction of the freight terminals at Harrison St., Chicago, together with the construction of a reinforced-concrete office building.

COLORADO & NORTHWESTERN.—We are officially advised that this railroad and equipment was sold at foreclosure at Boulder, Colo., on March 29 by Special Master George F. Bartlett, Jr., to Chas. D. Marvin, who transferred it to the Denver, Boulder & Western R. R. Co., the highest bidder for cash. As noted on Feb. 25, this road runs from Boulder, Colo., to Sunset, where it branches, one line going to Ward and one to Eldora. It has, including spurs, about 53.8 miles of track. W. B. Hayes is Pres., Boulder, Colo. No new work is contemplated at present.

CROWS NEST & NORTHERN.—C. O. Diffenderfer, Ch. Engr., 622 Peyton Block, Spokane, Wash., advises us that survey is made and negotiations now pending for new line from Crows Nest, B. C., northward along north fork of Michel Creek, 14½ miles. Capital is secured. Estimated quantity of excavation, 245,000 cu. yds. There will be two truss bridges and nine timber trestles. Contracts probably will be awarded in July. J. A. Williams is Pres., 610 Hyde Block, Spokane. Noted on Dec. 10.

DENVER, BOULDER & WESTERN.—See Colorado & Northwestern.

DES QUINZE & BLANCHE RIVER.—This company is asking for an extension of time for building its authorized lines from Dyment, Ont., on the Temiskaming & Northern Ontario Ry. to the mouth of the Des Quinze River, Quebec, thence to Des Quinze Lake. The BRONSON CO., Ottawa, has the contract for construction.

DYERSBURG NORTHERN.—This railroad will be extended to Hickman, Ky., 25 miles from Tiptonville, the present northern terminus, this year. Surveys have already been made for part of the line. R. M. Hall, Dyersburg, Tenn., is Pres. and Gen. Mgr.

FALL BROOK RY.—See Geneva, Corning & Southern R. R.

GENEVA, CORNING & SOUTHERN.—The Public Service Commission, Second District, has approved the application of the Syracuse, Geneva & Corning Railway Co. and of the Fall Brook Railway Co. for an agreement of consolidation by the Syracuse, Geneva & Corning Railway Co., the Fall Brook Railway Co. and the Pine Creek Railway Co. The consolidated company is to be known as the Geneva, Corning & Southern R. R. Co. Its corporate existence is to be 999 years and its principal office is to be in Albany. The capital stock of the consolidated corporation is $7,325,000. The railroads consolidated connect the main line of the New York Central at Lyons and the Philadelphia & Reading Railroad at Williamsport, Pa., with branches from Dresden to Penn Yan and from Lawrenceville to Ulysses, Pa. The three lines have been leased to the New York Central for 999 years.

HARRISON MINERAL BELT RY.—We are officially informed that this company was chartered at Little Rock, Ark., on March 30, with the following officers: J. R. Newman, Pres.; L. A. Saffer, First Vice-Pres.; Jno. E. Northern, Second Vice-Pres.; J. P. Crumpler, Treas.; Jas. A. Flinn, Secy., Harrison, Ark.; T. A. Morton, Ch. Engr., Vineyard, Ark. The line will be constructed north to St. Louis, Mo., via Lead Hill and Houston, Ark., and extended south to Paris, Tex., to connect with the Santa Fe, a total length of about 550 miles. For details address Mr. Saffer, at Harrison, or Mr. Norton, at Vineyard.

MASSACHUSETTS.—Bids were received as follows on April 9, at the Bureau of Supplies and Accounts, Navy Department, Washington, D. C., for the Bureau of Ordnance, for the construction of a railway track, on the U. S. Naval Magazine site at Hingham, Mass. There will be about 9,500 lin. ft. of main track, standard gage with 80-lb. steel rails, and about 3,615 lin. ft. of siding and spurs, also the construction of a loop to the main track, 3,200 lin. ft., making the total length of the main track, with the sidings, spurs and loop, 16,375 ft.: Bruno & Petitti, Boston, $77,300; Boston & New York Contracting Co., 35 Brooks St., Boston, $63,800; C. M. Leach, care Navy Yard, Boston, Mass., $43,783; Fred T. Ley & Co., Inc., Springfield, Mass., $63,000; George M. Painter, 68 Broad St., New York, $64,198, $62,798; R. I. Contract Engineering Co., 144 Westminster St., Providence, R. I., $56,240.

NATIONAL LINES OF MEXICO.—It is announced that this company will spend $12,000,000 in the near future in improving the Mexican Central line, and changing the Inter-oceanic railway between Mexico City and Vera Cruz into a broad-gage system. It is stated that bids will be asked in all the capitals of the world. E. N. Brown is Pres., and James M. Reid is Ch. Engr., Mexico City, Mex.

NEWTONTON & HUTTONSVILLE.—This company has been chartered in West Virginia to build a line between the points named in the title. The incorporators are E. J. Russ, St. Marys, Pa.; C. He Hein, Kane, Pa.; N. B. Bibb, Williamsport, Pa.; Henry Speer and Alexander W. Ewing, Pickens, W. Va.

NEW YORK CENTRAL & HUDSON RIVER.—See Geneva, Corning & Southern R. R.

PENNSYLVANIA R. R.—The JAMES McGRAW CO., 1010 Arcade Bldg., Philadelphia, Pa., has been awarded the contract for the elevation of tracks on Trenton Ave., at Philadelphia for the Pennsylvania R. R. The work is for the elimination of grade crossing on the line of Trenton Ave., Kensington Branch of the Pennsylvania R. R. The work includes 35,000 cu. yds. of general excavation, 50,000 cu. yds. of embankment, 25,000 cu. yds. of concrete masonry and steel viaduct construction. Noted on March 18.

*PHILADELPHIA & READING.—Bids are asked by W. Hunter, Ch. Engr., Philadelphia, until noon, May 11, construction of the work appurtenant to the abolishment of grade crossings on the P. G. & N. R. R. as follows: Contract No. 1, masonry, trestle and embankment from the south side of Green St. to the south side of Brown St.; Contract No. 2, foundations for the steel viaduct from the south side of Brown St. to the north side of Jefferson St.; Contract No. 3, bridges and viaduct ready for ballast from the south side of Green St. to the north side of Jefferson St.; Contract No. 12, masonry, embankment, paving, water and drainage systems, fence and gates, new office building, scale foundation, concrete steps and pavement for yard at Master St.

PINE CREEK.—See Geneva, Corning & Southern R. R.

SHENANDOAH, FRICKVILLE & POTTSVILLE.—Surveys have been completed, it is stated, for the proposed 8-mile extension from Shenandoah to St. Clair, Pa. G. H. Gerber, Reading, Pa., is Pres.; G. H. Eby, is Engr., Lancaster, Pa.

SYRACUSE, GENEVA & CORNING.—See Geneva, Corning and Southern R. R.

## ELECTRIC RAILWAYS.

RIVERHEAD, (L. I.), N. Y.—Application for a franchise to build an electric railway in Riverhead has been made to the Town Board by John E. Root, New York; George W. Reeves and Frederic M. Lewis, and J. Madison Wells, of Greenport; and George F. Stackpole, of Riverhead. It is proposed to build and operate an electric railway from the Riverhead depot to Orient Point.

WAVERLY, N. Y.—G. L. Leavenworth, of Troy, J. H. Madigan, of Mechanicsville, and T. C. Welling, of New York City, engineers in charge of the construction of the Elmira, Corning & Waverly R. R., are now at Waverly in the interests of the completion of the line. The line connects Wellsburg, Chemung and Waverly, and will later connect Corning and Elmira. J. E. Packer is Secy., 50 Church St., New York.

ALBANY, N. Y.—The Buffalo, Niagara Falls & Rochester Railway Co. cannot operate an electric road from Rochester to Lockport, Niagara Falls and Buffalo, a distance of 120 miles, according to a decision handed down on April 6 by the Court of Appeals. The court affirms an order of the Appellate Division, reversing an order granted on Aug. 14, 1905, by the former State Board of Railroad Commissioners, granting a certificate of convenience and necessity to the road.

MILLVILLE, N. J.—The Bridgeton & Millville Traction Co. may extend its line to Port Norris, 20 miles. C. F. W. Meyers is Ch. Engr., Bridgeton, N. J.

LEWISBURG, PA.—Application will be made by Charles S. Ball, Chas. A. Desbrow, John F. Whitaker, D. L. Diehl, Erwin M. Beale and Andrew A. Leiser for a charter for a corporation to be called the Lewisburg Street Ry. Co. Erwin M. Beale, Andrew A. Leiser, Jr., are the Solicitors.

GROVE CITY, PA.—The Slippery Rock & Grove City Ry. Co. has applied to the City Council for a franchise to construct a street railway over the streets of Grove City. The proposed railway will extend from Slippery Rock to Grove City via Harrisville. The company has an engineering corps at work, it is stated, now running surveys for the route.

ALLENTOWN, PA.—The Lehigh Valley Transit Co., it is announced, plans to spend about $1,000,000 during the coming summer in the improvement and extension of its lines and in the betterment of its entire equipment. "The plans of the company include the laying of about ten miles of additional trackage through the various streets in Allentown, providing a local service for which franchises were granted nearly two years ago, but which, because of the financial depression of the last year and a half, were not accepted until now. Additional machinery will be installed in the power-house in this city, and the rolling stock of the company will be overhauled and added to. On May 26 the stockholders of the transit company will meet in this city to vote on the proposition to increase the bonded debt $1,-500,000. E. R. Smith & Co., and Brown Bros. & Co., of Philadelphia, have agreed to take over the bonds. Of the proceeds, $1,-000,000 will be spent in improvements and $500,000 to pay off the company's floating debt. The net earnings of the company last year were $56,000, and the current year, it is expected, will show a balance of $150,000." R. P. Stevens is Gen. Mgr., Allentown.

MORRIS, PA.—The Morrisdale Ry. Co. has been chartered to build an electric railway four miles in length, in Clearfield County, in the vicinity of Morris. Capital stock, $40,-000. Charles Steele, Northumberland, is Pres.

WHEELING, W. VA.—The City & Elm Grove R. R. Co. will rebuild its line from Elm Grove to West Alexander and make other improvements. J. W. Smith, Wheeling, is Gen. Mgr. and Ch. Engr.

BRUNSWICK, GA.—Application has been made to the Secretary of State by the City & Suburban Ry. Co. for a charter to construct and operate an electric railway not less than four miles in length in Brunswick. Principal office, Brunswick. Capital stock, $50,000. Among the applicants for the charter are: F. D. M. Strachan, Frank D. Aiken, E. F. Coney, C. Downing and Albert Fendig.

FITZGERALD, GA.—Contracts probably will be awarded by June 1 by the Fitzgerald & Ocilla Elec. Ry. & Power Co. for its proposed electric line between Fitzgerald and Ocilla, twelve miles. A power station will be built on Lake Beatrice between Fitzgerald and Ocilla. The repair shops will be erected near the power plant. Power will be supplied for lighting. Capital stock, authorized, $100,000, of which about two-thirds has already been issued. Bonds authorized, $250,000. Headquarters will be at Fitzgerald. New York office is at 61 Fifth Ave. S. Tilden Holtzendorf, New York, is Pres.; Judge D. B. Joy, Fitzgerald, Vice-Pres.; C. A. Holtzendorf, Fitzgerald, Secy.-Treas. and Gen. Mgr. The General Contracting & Engineering Co., 50 Church St., New York, has charge of engineering work.

NEW CASTLE, IND.—A petition for permission of the court to advertise for bids for the finishing of the Indianapolis, Newcastle & Toledo Ry. Co. has been filed in Superior Court before Judge Vinson Carter by George A. Buskirk, of the Union Trust Co., of Indianapolis, receiver for the railway company. The petition also asks for an order of the court by which receiver's certificates may be issued to cover the work of construction.

ELGIN, ILL.—The Elgin & Sycamore Ry. Co. has been incorporated in Illinois for the purpose of constructing an electric railway through Elgin to Sycamore and thence through De Kalb to Dixon and to Aurora. Capital stock, $100,000. Directors: B. C. Payne, F. N. Rogers, E. S. Bailey, F. J. Hohling, F. W. Merrick and F. N. Rogers, all of Elgin.

OTTAWA, ILL.—The Chicago, Ottawa & Peoria R. R. Co. (Illinois Traction System) has completed surveys and secured capital for construction of its proposed 18-mile line from Seneca to Morris and Streator to Ottawa. Contracts for constructing the road will be let soon. W. B. McKinley, Champaign, Ill., is Pres., and W. H. Tarrant, Peoria, Ill., is Ch. Engr. The Seneca to Morris line will be twelve miles long and the Streator to Ottawa line will be six miles long.

LA SALLE, ILL.—The Galesburg, La Salle & Kankakee Ry. Co. has been incorporated to build an electric railway from La Salle to a junction with the Chicago, Indiana & Southern Railroad in La Salle County, thence in a general northwesterly direction to a point opposite La Salle, on the Illinois River. The principal office of the company will be located at La Salle. Capital stock is $300,000. The incorporators and first Board of Directors are: William J. Parks and John W. Scott, of La Salle, Ill.; Frank O. Lash, of Bloomington, Ill.; James D. Flood and Harry F. Hamlin, of Chicago.

PARSONS, KAN.—The Kansas Union Traction Co. has closed a contract with ARCHER & ROLLINS, Kansas City, Mo., for the preliminary survey and report on the proposed railway between Parsons and Coffeyville, via Altamount and Edna.

JOPLIN, MO.—The Northwest Arkansas Electric Ry. Co. will be constructed by the Arkansas Cooperative Construction Co., Bentonville, Ark., which has been incorporated. It will be a standard-gage electric interurban running from Joplin, Mo., to northwest Arkansas, about 200 miles. Surveys are in progress. Construction is planned at an early date. Winlock Morris is Pres.; H. A. Luekens, Vice-Pres.; J. W. Blocher, Secy.; Dwight Dickson is Treas., and P. H. Sackett, Ch. Engr.

PORT ARTHUR, TEX.—H. J. Myers, of Dayton, Ohio, and S. A. Price have been granted a franchise to build an electric street railway in Port Arthur and on three miles of the county road leading to the steamship docks and the Gulf & Texas oil refineries, about six miles. Company will be known as the Port Arthur St. Ry. Co. The plans call for the construction of a power plant and repair shop at Port Arthur. An amusement park will be operated by the company, but its location has not yet been decided upon. Ten cars will be purchased. The officers have not yet been elected. Principal office, 501 Conover Bldg., Dayton, Ohio. Construction plans will not be taken up for four or five weeks.

SHERMAN, TEX.—J. P. Hornaday & Co., 30 Church St., New York, advise us that construction contracts will be let about May 1 for building the line of the Gainesville, Whitesboro & Sherman Electric Ry., construction work on which was started two years ago. Line will be operated by gasoline. Previously noted.

SAPULPA, OKLA.—We are officially advised that the Sapulpa & Interurban Ry. Co., which proposes to build a line from Sapulpa, Okla., southeast via Kiefer to Glenpool, on the Midland Valley R. R., ten miles, has awarded contract for grading to PAT McNERNEY, Sapulpa; and contract for bridges to the KANSAS CITY BRIDGE CO., Kansas City. Five miles additional will be built at and near Sapulpa, also a 3-mile line north to oil fields at Tanneha. Surveys are made and right-of-way obtained. The company will erect the overhead work with its own forces. H. E. Clark is Pres., Glen Campbell, Pa.; D. W. Patton, Ch. Engr., Sapulpa.

GOLD HILL, COLO.—The CONSOLIDATED TRAMWAY CO., Inc., 45 Broadway, New York, and Roanoke, Va., has been awarded contract for the construction of a looped-section tramway for the Gold Issue Mining & Milling Co., near Gold Hill, Teller County, Colo. This line will be about 2½ miles in length, and will convey gold ore from the mines of the company direct to bins at its cyanide mils. Active construction work will begin on this line on April 15, and it is expected that it will be completed and put in operation within six weeks. W. C. Lawson is Pres.

EVERETT, WASH.—E. L. Colburn, Secy. of the Everett & Tacoma Ry. Co., Snohomish, Wash., informs us that this company has made surveys and secured practically all right-of-way for its proposed electric railway from Everett to Snohomish, Issaquah, Seattle and Tacoma, 110 miles. Capital is practically obtained and construction contracts will be let about June 1. G. M. Cochran is Pres., and E. Colburn & Son are Engrs., Snohomish.

WALLACE, IDAHO.—Contracts have not been let yet by the Spokane, Wallace & Interstate Ry. Co., which plans to build between Wallace, Wardner, Burke, Mullan, Coeur d'Alene, Idaho, and Spokane, Wash., about 100 miles of single track. Right-of-way is partly secured. Surveys are made. Amusement parks will be established at Osburn, Mission and Coeur d'Alene. Capital stock, authorized, $3,500,000; issued, $100,-000. General office, Wallace. F. F. Johnson, Wallace, is Pres.; Alfred Page, Wardner, Vice-Pres.; Wm. J. Hall, Wallace, Treas. H. F. Robertson, Wallace, is Ch. Engr.

COBOURG, ONT.—The Cobourg, Port Hope & Havelock Electric Railway Co. has been granted a charter by the Legislature for a line which will run from Port Hope to Cobourg, across Northumberland County to Warkworth and Campbellford and on to Havelock, with branches to Blairton and to the Marmora mining district, and other branches from a point near Warkworth to Roseneath and Hastings. The company includes Col. H. A. Ward, K. C., of Port Hope, Secy. of the company; W. J. Crossen, Cobourg; H. T. Bush, Port Hope; E. S. Huycke, K. C., Port Hope, and Reeve Jos. Knox, of Havelock.

LAKE SUPERIOR JUNCTION, ONT.—The CONSOLIDATED TRAMWAY CO., 45 Broadway, New York, has just closed a contract with the Northern Pyrites Co., 82 Beaver St., New York, for the construction of a two-mile line of Lawson's looped-section tramway near Lake Superior Junction, Ont. The line will have a capacity of 30 tons per hour and will deliver pyrites ore from the company's mines to a siding on the Grand Trunk Ry. near Lake Superior Junction.

## LIGHT AND POWER PLANTS.

*(* denotes that this work is advertised in Engineering News.)*

CALAIS, ME.—The International Power Co. has made application to the New Brunswick Parliament for a charter. The company proposes to construct a dam on the St. Croix River half way between Baring and Woodland, where a site has been secured. The water power will be utilized to generate electricity, which will be used for commercial purposes. The company also proposes to construct an electric railway from St. Stephen to a point near Sprague's Falls on the New Brunswick side of the dam. George A. Curran and I. R. Todd are interested in the project.

NORTH ADAMS, MASS.—Arrangements are being made to enlarge the Blackinton Mills. A power plant to furnish electricity for lamps will be installed, to be operated by water power. An auxiliary steam plant will be installed.

NEW YORK, N. Y.—Bids are asked until April 16 by Allen N. Spooner, Comr. of Docks, Pier "A," foot of Battery Pl., North River, for furnishing all labor and materials required for installing mechanical and electrical equipment on Piers Nos. 53, 54, 56, 57, 58, 59, 60, 61 and 62, North River, between Bloomfield and 22nd Sts., on the Chelsea Section, Boro. of Manhattan. Blank forms and further information may be obtained and plans and drawings may be seen at the above office.

CENTRAL ISLIP, N. Y.—MORRIS KANTROWITZ, 20½ Plain St., Albany, N. Y., has been awarded the contract for the construction of the building to be erected at the Central Islip State Hospital, Central Islip, for $103,700. The contract includes the installation of two horizontal tubular boilers, engine, generator and switchboard, which will be purchased by the contractor. A complete list of bids was given on April 1.

WADDINGTON, N. Y.—The directors of the New York & Ontario Power Co., at a meeting held at Ogdensburg, N. Y., ordered the sale of $1,85[illegible],000 of bonds, the proceeds of which are to be used in developing water power at Waddington, N. Y. The company owns all the power rights between Waddington village and Crapser's Island and has a 12-ft. head capable of developing 30,000 HP. It is proposed to replace the present wooden and stone dam extending 600 ft. from the shore to the island with a concrete dam. The cost of thus harnessing the St. Lawrence River and equipping the power station is placed at $2,000,000. Work on the improvement is to be begun this spring. The company has the right to sell power in both Canada and the United States, and will furnish electric energy for the operation of the new Norwood & St. Lawrence Railroad.

TALCVILLE, N. Y.—See item under Manufacturing Plants.

PHILADELPHIA, PA.—Congress having appropriated $172,600 for the completion of the central power plant in the Navy Yard at League Island, plans for the work have been prepared by R. C. Holliday, Ch. of Bureau of Yards and Docks, Navy Dept. The appropriation is available July 1, and it is expected that estimates will be taken and a contract let shortly thereafter.

FREDERICKSBURG, VA.—The City Council has granted a 30-yr. franchise to the Fredericksburg Electric Co. to furnish electricity for lamps, heating and motors in Fredericksburg. The Council also granted a franchise to the Electric Generating Co. to construct a flume and power-house within the city limits. The Fredericksburg Electric Co. contemplates an expenditure of about $25,000, and the Electric Generating Co. will expend about $100,000. Work on construction of these plants will begin at once. William C. Whitner is Consult. Engr.

GREENVILLE, N. C.—P[illegible] Thomas J. Jarvis, Chn. Ex[illegible] till May 4, for the constr[illegible] house and infirmary at East[illegible]ers' Training School, also[illegible] including boilers, stack, eng[illegible] chinery, ice plant, generato[illegible] Rogers, of Charlotte, N. C., [illegible] son, Newbern, N. C., are A[illegible]

FITZGERALD, GA.—Prel[illegible] have been completed for th[illegible] tric railway between Fitzge[illegible] 12 miles in length. The [illegible] to be ready to award con[illegible] struction of the road by May [illegible] A power station will be [illegible] Beatrice between the two cr[illegible] will supply electricity for i[illegible] zendorf, of Fitzgerald, is [illegible] Mgr. The General Engineer[illegible] ing Co., of New York, N. Y., [illegible] the engineering work.

STARKE, FLA.—The City [illegible] make improvements to the m[illegible] light and water plant, to inc[illegible] lation of the following machi[illegible] KW. generator; 150-HP. boil[illegible] The cost of the work is estim[illegible] William R. Collier, of Atlanta[illegible] sulting Engr., and W. L. Wa[illegible]

MERIDIAN, MISS.—W. F[illegible] of the Municipal Water-Work[illegible] submitted to the City Council a[illegible] ing that an electric light plan[illegible] installed in connection with the[illegible] system at a cost of $75,000. [illegible] is based on a plant with sufficie[illegible] supply 500 arc lamps and suf[illegible] descent lamps to light the mun[illegible] ings.

CLEVELAND, OHIO.—The [illegible] Worsted Mills Co. will construct an addition to its power plant. The company will install a 1,500-KW. alternating-current generator direct connected to a Corliss engine. George S. Rider & Co., Century Bldg., Cleveland, Ohio, are Engrs.

INDIANAPOLIS, IND.—The [illegible] Light & Heat Co. has awarded a contract to HENRY MAAG, Unity Bldg., for the construction of a concrete dam in Fall Creek at Northwestern Ave. T. A. Wynne is Secy. and Supt.

CLOVERDALE, IND.—The Town Board has decided to build and equip an electric lighting plant.

KNIGHTSTOWN, IND.—The Reliance Engineering Co., Fourth National Bank Bldg., Cincinnati, Ohio, has made an investigation of the municipal electric light plant and has recommended changing some of the single-phase, 125-cycle dynamos for 3-phase, 60-cycle apparatus.

CRAWFORDSVILLE, IND.—The City Council is planning to construct a municipal central heating plant. Plans are being made. H. B. Hulett is City Clerk.

SOUTH BEND, IND.—The Manufacturers' Utility Co., recently incorporated, will construct water and electric power plants along the St. Joseph River and sell or lease power to manufacturers. R. U. Miller, John Thomas and August Nelson are Dirs.

VINCENNES, IND.—The Board of Public Works is asking for bids for a street lighting contract for a period of ten years from April 29, 1910. Bidders will be required to furnish or build a power plant and operate 263 arc lights of 2,000 c.p.

HILLSDALE, MICH.—The Council is contemplating making improvements to the municipal electric light plant which will cost about $10,000. H. C. Clark is Mgr.

DETROIT, MICH.—G. W. Graves, Arch., Cleveland Bldg., is preparing plans for a power-house to cost about $50,000 for a manufacturing firm of this city.

GRAND RAPIDS, MICH.—The contract for transformers and switches for sewage pumping station was awarded to the WAGNER ELECTRIC MFG. CO., Plymouth Ave., St. Louis, Mo., at $6,100. Samuel A. Freshney is Secy. Bd. of Public Works.

Plans of the Grand Rapids Gas Light Co. for the coming summer call for an expenditure of about $50,000 in extension of gas mains, a considerable amount of new territory being covered and a considerable proportion of the work mapped out being with reference to future growth and consequent demand in territory within and outside the city. John Hellen, Supt. of Distribution, has figured out the work proposed which has been considered by the officials and it is planned to start work when the frost is out of the ground. The company is figuring on laying about ten miles of gas mains this summer and a portion of that amount in territory where gas is not now used and is in demand, and where, as noted future development and considerable building this spring is evident. It is probable that about four miles of mains will be laid in Wyoming Township out Grandville Ave., east and west, and this work will probably be taken up first. Two miles also are figured for the west side, including territory on Fulton St., north and east of Ball Park to Bridge St., and other places. It is likely that in the north end a mile of mains will be laid in short pieces, scattered about, and also in the city more scattered work where new streets are being cut through and mains are wanted, while for the south end a big 16-in. feeder main is planned. B. O. Tippy is Vice-Pres. and Gen. Mgr.

CHICAGO, ILL.—The Commonwealth-Edison Co. has awarded contracts for the construction of two substations to the E. P. STRANDBERG CO., 150 La Salle St., for $54,000. One of the stations will be located at Grand Crossing and the other at 93[illegible] South Chicago Ave, it is stated.

BELOIT, WIS.—The Beloit Water, Gas & Electric Co. contemplates making extensions to its system for the purpose of furnishing electrical service to manufacturing plants, particularly to the metal working industries. B. F. Lyons is Acting Mgr., Beloit.

NEILLSVILLE, WIS.—The La Crosse Water Power Co., which has spent $1,500,000 improving the water power at Hatfield on the Black River, is about to employ 500

men recon[s]ecting the Dells' dam near Nellsville, [w]ith a view of increasing the power avail[a]ble. W. J. Ferris, La Crosse, is Pres. and [M]gr.

CHARLES[-]CITY, IOWA.—The franchise to erect an[d] operate a gas plant has been granted to [J.] T. F. Runner and R. K. Runner, of Fre[e]port, Ill., who will start work immediately [o]n the erection of the plant. Runner is Secy. of the Freeport Z. T. F. gas plant.

INTERN[A]IONAL FALLS, MINN.—The Minnesota Ontario Power Co. let contract for the equipment of its hydro-electric plant at Internal Falls to J. G. WHITE & CO., 49 [E]xchange Pl., New York, N. Y. The plant [w]ill first will be equipped to generate about [2]0,000 HP. Provision will be made to [i]nstall another unit later. The plant will [f]urnish power to a large paper mill and [o]ther manufacturing plants. It is expected [t]o have the plant in operation by Jan. 1, 1[9]10.

CLAFL[I]N, KAN.—Contracts have been awarded [by] E. R. Ruck for construction of an electric [l]ight plant and equipment, which will inclu[de] a 22-HP. Weber gasoline engine and a We[s]inghouse direct-current generator.

SOUTH [O]MAHA, NEB.—Bids will be received at [t]he office of John J. Gillin, City Clerk, City [H]all, South Omaha, until 8 p. m., April 19, for lighting the streets of the city of South [O]maha and furnishing of electric or gas lamp[s] poles, care, maintenance and operation [o]f such lamps and appurtenances, including [t]he necessary electricity or gas therefor as [t]he case may be, for the period of five or [t]en years, beginning at noon, Oct. 26. Bids [a]re also solicited for furnishing lights to the city for the purpose of lighting the City Hall and jail building and all other buildings and places in the city of South Omaha, Neb.

LEAD, S. DAK.—The Homestake Mining Co. will expend about $500,000 on its proposed water power project. Preliminary to prosecuting active work, the company made application in accordance with the state law for the appropriation of a certain amount of water from Spearfish Creek, one of the principal watercourses of the Black Hills. The company made application for a permit to appropriate for its use 100 cu. ft. of water per second of time from Spearfish Creek through the Homestake power conduit, the point of diversion of which is to be located upon the left bank of the stream a short distance below Spearfish Falls, such water to be used, as stated, for power purposes. The location of the power-house will necessitate construction of a conduit three or four miles in length.

AUSTIN, TEX.—The Water and Light Committee has decided to adopt the plans prepared for rebuilding of the dam. The cost of the dam, machinery and equipment is estimated at $750,000. The new site is located about 2,000 yds. above the present dam at Mount Bonnell.

CALVERT, TEX.—The City Council has awarded the CALVERT WATER, ICE & ELECTRIC LIGHT CO. a contract for street lighting. It is stated that the company will erect a new electric light plant. George C. Volle, Calumet, is Mgr.

MINCO, OKLA.—It is probable that the city will let contracts this month for construction of an electric light plant and water-works system. Estimated cost of both, $25,000.

CRIPPLE CREEK, COLO.—L. C. Whitney, Engr., of Cripple Creek, and his associates, W. R. Gillpatrick, W. C. Reilly and Miss Molly O'Brien, have secured a certificate of location at what is known as the Roosevelt Mill site and is located about 1,000 ft. south and down the gulch from the mouth of the Roosevelt Deep Drainage tunnel. The site contains about 2,000 ft. of ground and is a distance of about six miles from this city. The plan is to erect a plant at this point, the total cost of which will be about $500,000, which will include an electric plant for the generation of power for light, heat and power purposes, and a mill for the treatment of ore, the mill to be fitted out with the latest methods for ore treatment. It is estimated that when the drainage tunnel is completed, there will be a flow of water sufficient to establish a 150,000 HP. plant. The plant will have a 200 ft. fall of water, and there will be two 6-ft. wheels put in position.

FORT BAYARD, N. MEX.—See item under Buildings.

NAMBE, N. MEX.—E. H. Fisher, of Cimarron, N. Mex., contemplate developing the water power of the Pecos and Nambe Rivers, and will erect two power plants with a total output of 5,000 HP. The cost of the work is estimated at about $500,000.

SPOKANE, WASH.—The Inland Empire Portland Cement Co., recently incorporated, will commence work soon on the construction of a plant, which will involve an expenditure of about $1,000,000. The company has purchased the mineral holdings of Lewis P. Larson, of Spokane, located near the mouth of Sullivan Creek, and also his water rights on that stream. Water rights have also been filed on Sullivan Lake, which will be raised to increase its storage capacity. It is estimated that from 8,000 to 12,000 HP. can be developed under a head of 465 ft. The cement mill will be operated by water power, which will require 2,000 HP., and the rest of the power will be utilized to generate electricity for use of the company and for commercial purposes. F. A. Blackwell, Pres. of the Idaho & Washington Northern R. R. Co., is interested.

EVERETT, WASH.—The Everett Railway, Light & Water Co. has awarded a contract to the STONE & WEBSTER ENGINEERING CORPORATION, 147 Milk St., Boston, Mass., for the construction of a sub-station, the equipment of which will include one 500-KW. motor generator, with switchboard and transformers.

SACRAMENTO, CAL.—The Board of Trustees has awarded the contract for furnishing and installing the pumps and apparatus for the municipal water plant to the DOAK GAS ENGINE CO., at $5,600. The pumps may be operated by either steam or electricity.

PHOENIX, ARIZ.—Work will start soon on a building for the Pacific Gas & Electric Co. It will cost $12,000, and the machinery to be installed, $75,000. F. H. Ensign, Phoenix, is Mgr.

COLD SPRINGS, UTAH.—The Snowflake Gold Mining & Power Co. expects to commence work on construction of its power plant in about 60 days. The company proposes to supply electricity for power to the mining camps in this vicinity. C. A. Short is Pres. and Mgr.

MEXICO CITY, MEXICO.—The Mexican Nation Gas Co. will supply gas to consumers in this city. The Government of Mexico has granted the necessary concession for laying mains in the streets and for all needed improvements. The company will maintain offices in this city. The officers and directors are. J. L. Doheny, Pres. of the Mexican Petroleum Co., Pres.; C. A. Canfield, Vice-Pres.; R. H. Miller, Los Angeles, Vice-Pres.; Norman Bridge, Los Angeles, Secy. and Treas.; E. P. Ripley, Pres. of the Santa Fe R. R.; R. O. Bradley, Mgr. Pacific Telegraph & Telephone Co., San Francisco; W. L. Hardin, Los Angeles, and Harold Walker, Mexico City. For making the gas crude oil from the fields of the Mexican Petroleum Co., at Ebano, and along the Gulf of Mexico, will be used.

## BRIDGES.

*(* denotes that this work is advertised in Engineering News.)*

SOMERVILLE, MASS.—A bridge is to be erected over the Boston & Maine R. R. tracks at Lowell St., near Somerville Junction station. Estimated cost, $31,200.

BOSTON, MASS.—The Railroad Commissioners, upon the petition of the Boston & Maine R. R. Co., the Boston & Albany R. R. Co. and the West End St. Ry. Co., ordered that the Mystic Ave. bridge, between Boston and Somerville, be rebuilt, the existing superstructure removed, the westerly abutment rebuilt of granite masonry about 20 ft. west of its present position. A new steel bridge is to be built upon the location of the present bridge, about 60 ft. wide and 213 ft. long.

FAIRPORT, N. Y.—The construction of a bridge over the Erie Canal on the site of the present Main St. structure is contemplated.

*WANAQUE, N. J.—We are officially advised that the contract for the construction of the reinforced steel bridge here has been awarded to the UNION BRIDGE CONSTRUCTION CO., 80 Wall St., New York, at $6,267. Noted last week.

HOKENDAUQUA, PA.—Bids are asked by the County Commissioners, Allentown, Pa., until 10 a. m., April 19, for repairs and alterations to the superstructure of the bridge over the Lehigh River here. T. S. Troxell is Clk.

HAVRE DE GRACE, MD.—The Conowingo Bridge Co. has awarded contract to the VIRGINIA BRIDGE & IRON CO., Roanoke, Va., for the erection of the proposed 1,500-ft. bridge across the Susquehanna River above Havre de Grace.

*NORFOLK, VA.—Bids will be received by the Board of Control until April 26 for the construction of a reinforced-concrete bridge.

GRAHAM, N. C.—Contract for building 14 short-span reinforced-concrete bridges was awarded on April 5 to the EUREKA BUILDING BLOCK CO., of Burlington, N. C., at $19,136. The county will furnish the reinforcing material. R. L. Holt, Burlington, N. C., is Chn.; Gilbert C. White is Engr., Durham, N. C.

FERGUSON, S. C.—We are officially advised that the FOSTER-CREIGHTON-GOULD CO., Nashville, Tenn., have been awarded contract by the Santee River Cypress Lumber Co., of Ferguson, for both the substructure and superstructure of a single-track railway bridge across the Santee River near Ferguson.

COLUMBUS, GA.—W. C. Campbell, City Engr., has received detailed plans and specifications from the Concrete-Steel Engineering Co., Park Row Bldg., New York, for the proposed Dillingham St. bridge. The plans were prepared under the supervision of Edwin Thatcher. Bids will probably not be asked for some time.

CALHOUN, GA.—The Gordon County Commissioners are considering the erection of an additional pier and improvement of the wagon bridge over the Oostanaula River. Estimated cost, $5,000.

PHENIX CITY, ALA. (Columbus postoffice, Ga.)—The city has awarded contract to J. W. LONG, of Waverly Terrace, Columbus, for the construction of a concrete culvert 50 ft. long at Knox bridge site. Plans and specifications were prepared by D. F. L. Jones, of Columbus.

ROGERSVILLE, TENN.—Bids are asked until April 21 by the County Pike Commissioners, J. R. Sanders, Chn., for the erection of a 350-ft. steel bridge with about 400 ft. steel trestle, across Holston River, near Rogersville. Bids will also be received for constructing several steel bridges throughout the county over smaller streams.

MILL SPRINGS, KY.—The Monticello Construction Co., F. S. Parrigin, Ch. Engr., is preparing plans for a bridge across the Cumberland River, the structure to be of steel, 1,100 ft. long and 190 ft. high.

HURON, OHIO.—The County Commissioners, Sandusky, may construct the proposed steel bridge at Berlin St. on the site of the present structure. Estimated cost, $70,000.

HAMILTON, OHIO.—The County Commissioners on April 3 rejected all bids for the construction of a bridge over Indian Creek, Reily Township.

CLEVELAND, OHIO.—Bids for the substructure of the Denison-Harvard bridge were received on April 3 by the County Commissioners. The CONCRETE STEEL CONSTRUCTION CO., of Pittsburg, Pa., was awarded contract at $165,000.

RICHMOND, IND.—The Commissioners of Wayne County have received plans for the construction of three new bridges and the repair of two old bridges. Bids will be received until April 24.

ELKHART, IND.—The Commissioners of Elkhart County have adopted plans and will ask for bids for the construction of a new bridge over the Elkhart River at Jackson St.

BOONEVILLE, IND.—The Commissioners of Warrick County have let contracts for the construction of 21 bridges as follows: To THOMAS BELOAT, six; VINCENNES BRIDGE CO., five; LAFAYETTE BRIDGE CO., ten.

ELKHART, IND.—The City Engineer has prepared plans for a plate-girder bridge over the Elkhart River here. Estimated cost, about $20,000. A. M. Smith is City Engr.

CHICAGO, ILL.—The contract for furnishing material and constructing new supports and shifting present span at Lawrence Ave., bids opened on April 3, has been awarded to the ROEMHELD CONSTRUCTION CO., New York Life Bldg., Chicago, at $7,980.

The Engineering Committee of the Drainage Board has decided to recommend the widening and improvement of Chicago River between Adams and Van Buren Sts., and the construction of new bascule bridges at Adams St., Jackson Boulevard and Van Buren st. Estimated cost, $2,000,000.

*CHICAGO, ILL.—Bids were received by I. J. Bryan, Clk. of the Sanitary District of Chicago, American Trust Bldg., Chicago, on March 24, for excavating a channel, designated as Section Nine of the North Shore Channel, and for performing certain collateral bridge work. The work for which bids are invited, includes the excavation of a channel about 5,000 ft. long and containing about 375,000 cu. yds. of earth, the construction of substructure and the erection only of the superstructure of a highway bridge at Devon Ave., all situated in the Township of Niles, and the city of Chicago, Cook County. All work to be completed before Sept. 1, 1910. JAMES O. HEYMOUTH, Railway Exchange Bldg., Chicago, has been awarded contract at $54,065. List of bidders noted last week.

*See under Miscellaneous Contracts.

PEORIA, ILL.—At a meeting of bridge engineers of the proprietary lines of the Peoria & Pekin Union Ry. Co., it was decided to build a $500,000 steel bridge for the road across the Illinois River at this point. R. H. Johnson is Gen. Mgr., Peoria.

CHIPPEWA FALLS, WIS.—The contract for a steel bridge, 16 × 118 ft., near Chippewa Falls, has been let to WETHERALL & CO., of Chicago, Ill.

*CEDAR RAPIDS, IOWA.—Plans and specifications are on file at the office of Engineering News, New York, for furnishing material and constructing a reinforced-concrete bridge at 16th Ave. across the Cedar River, to replace the present structure, consisting of seven 80-ft. spans. Bids are asked until April 24. L. J. Story, City Clk.

NEW HAMPTON, IOWA.—Bids are asked until 1 p. m., May 4, extension of time from April 6, by F. N. Lentz, County Audr., for constructing certain concrete bridges.

PIERCE, NEB.—Bids are asked until noon, April 22, by J. B. McDonald, County Clk., for constructing several bridges.

VAN BUREN, ARK.—Lund & Hill, Consult. Engrs., Little Rock, Ark., have prepared blue prints for the proposed free bridge structure to be concrete steel arch, 1,500 ft. long, supported on twelve piers, including abutments.

WACO, TEX.—The Citizens' Ry. Co. contemplates repairs to the suspension bridge across the Brazos River. Judson H. Boughton is Consult Engr., 1148 Pierce Bldg., St. Louis, Mo.

DENVER, COLO.—The House has passed the bill providing for an appropriation of $50,000 toward the construction of the W. Colfax Ave. viaduct.

DAYTON, WASH.—The Oregon R. R. & Navigation Co. may build a steel bridge over the Touchet River.

TOLEDO, ORE.—Bids are asked until May 1 by the County Clerk of Lincoln County, for rebuilding the bridge over Lents Slough at Waldport, bidders to furnish plans and specifications with bids.

EL CENTRO, CAL.—Bids are asked by the Board of Supervisors of Imperial County, El Centro, until April 19 for the construction of a bridge across the Alamo River, and also for a bridge to span the Redwood Canal, on the Alamo-Keystone road.

TORONTO, ONT.—The State Legislature on March 29 passed bills, including the following appropriations: A conditional grant of $15,000 for the Hawkesbury bridge, and $50,000 for a road from Charlton to Gowganda.

## BUILDINGS.

*(* denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Putnam & Cox, Archs., 6 Hancock Ave., have prepared plans for a gymnasium for Harvard University. It will be a 1-story building. The only 2-story part is across the facade, where the offices and an upper level of corridors are located. The walls will be of concrete, and the large arenas and exercise halls vaulted with glass roofs, supported by skeleton steel trusses. The principal entrance is to be in the middle of the facade through a double colonnaded portico. This leads at once into a trophy hall, 72 × 80 ft., which supplements a transverse colonnaded corridor 24 ft. wide. Estimated cost, $1,000,000.

HARTFORD, CONN.—The National Fire Insurance Co. has awarded the contract for constructing a 6-story office building, 65 × 110 ft., of steel and brick construction, to MARC EIDLITZ & SON, 489 Fifth Ave., New York.

The proposition to erect a municipal building at a cost of $450,000, and a technical high school to cost $600,000 was defeated at the election held April 6.

WILLIMANTIC, CONN.—At a special town meeting, held April 7, the sum of $71,000 was voted for a new high school building. $11,000 to be used for purchasing the site. Thomas J. Kelley is Chn. of Com.

NEW YORK, N. Y.—Bids will be received at the office of George B. McClellan, Mayor, Chn. of the Armory Bd., in the City of New York, until 2 p. m., April 28, for alterations and additions to the steam heating apparatus in the 69th Regiment Armory, Lexington Ave. and 25th St., Boro of Manhattan; repairs, etc., to the lantern over drill hall of the 69th Regiment Armory, Lexington Ave. and 25th St., Boro. of Manhattan.

Henry Smith, Pres. Park Bd., has filed plans with the Building Superintendent for a 1-story and basement pergola, to be erected on Riverside Drive at 122d St., opposite Grant's Tomb, from designs by Theodore C. Videto, City Arch. It is to be of granite, with a colonnade of fluted Doric columns supporting the roof, and reached by a broad double staircase at either end. It is to cost $40,000.

Gaetan Ajello, Arch., has completed plans for an apartment house. It will cover a plot 78.1 × 84 ft. on the east side of Riverside Drive, 309 ft. north of 116th St. Bernard Crystal & Son are the owners. The construction will cost $200,000.

Horace Trumbauer, Arch., 857 Fifth Ave., has filed plans for a 6-story residence for Mrs. Adelaide L. Douglas, to be built at 57 Park Ave. It is to be 25.1 ft. front, of granite and limestone, in the Renaissance style of Louis XVI period, having a second story balcony and casement windows, with ornamental guard railings and crowned with a mansard. It will contain a library and a conservatory. It is to cost $12,000. CHARLES T. WILLS, INC., 156 Fifth Ave., has contract.

NEW YORK, N. Y.—Bids are asked by Nicholas J. Hayes, Fire Comr., until 10.30, April 21, for alterations to stalls in the quarters of the various engine and hook and ladder companies in the Borough of Manhattan.

Plans have been filed for an 8-story loft building with ground floor stores to be erected for Max Kaskel and Mrs. Adelaide Browning, as owners, at 550 and 552 Fifth Ave. It is to be 50 ft. front and 90 ft. deep, with a facade of limestone finished at the top two stories by arched bays enclosed in Corinthian pilasters supporting a cornice. It is to be built at a cost of $150,000, from designs by Buchman & Fox, 11 East 59th St., and has been leased for a term of years to L. P. Hollender & Co., 202 Boylston St., Boston, Mass.

Plans for two 6-story flat houses have been filed. They are to be built for Max Marx, 419 Convent Ave., on 141st St., 100 ft. west of Lenox Ave., from designs by George F. Pelham, Arch., 503 Fifth Ave., at a cost of $60,000 each.

Neville & Bagge, Archs., 217 West 125th St., have filed plans for a 6-story apartment house, with 39 suites, for William J. Case, 2865 Broadway, at the corner of Wadsworth Ave. and 178th St., to cost $175,000.

Plans have been filed for a 6-story apartment house containing 42 suites, to be built for the De Leon Realty Co., 320 Broadway, on St. Nicholas Ave., north of 159th St., at a cost of $125,000. Korn & Zipkes, 353 Fifth Ave., are Archs.

NEW YORK, N. Y.—An 8-story fireproof apartment house, with suites for 25 families, will be built for S. Barschardt, 97th St., 100 ft. east of Broadway, to cost $95,000. William L. Rouse, 12 West 32d St., is Arch.

Plans have been filed for a 12-story mercantile building to be erected at 143 and 145 West 20th St., for the Seneca Realty & Construction Co., 141 West 20th St. It is to be of brick, trimmed with terra cotta, and finished with a tier of large central mezzanine bays. It is to cost $150,000. Samuel Sass, Park Row Bldg., is Arch.

NEW YORK, N. Y.—We are advised by Townsend, Steinle & Haskell, Archs., 29 East 19th St., that they have prepared plans for enlarging Rogers, Peet & Co.'s store and office building at the southwest corner of Broadway and Warren St., by the addition of an 8-story and basement building on the west of the present structure, and covering the plot at 7, 9 and 11 Warren St. The addition will be of fireproof construction, with a facade of brick with trimmings of limestone and terra cotta, finished with large ornamental bays and harmonizing with the main building. It will have a frontage of 75.5¼ ft. and a depth of 76.2 ft. It will cost $150,000. The general contract has been let to C. T. WILLS, INC., 156 Fifth Ave., who will let sub-contracts.

Bids were received as follows on April 12 at the office of James Knox Taylor, Supervy. Arch., Treasury Dept., Washington, D. C., for the construction of the superstructure of the new Assay Office, New York City: F. T. Nesbit & Co., Inc., 116 Nassau St., New York, $177,700; Charles H. Peckworth, 415 Hudson St., New York, $167,969; Cramp & Co., Commonwealth Bldg., Philadelphia, $164,900; Ambrose B. Stannard, St. James Bldg., New York, $178,770; Thomas McKeown, 103 Park Ave., New York, $185,133; Clark & Stowe, 221 Greenpoint Ave., Brooklyn, N. Y., $186,300; Richard E. Hennigham, New York, $173,574; J. F. Walsh Co., New York, $182,000; John H. Parker Co., 42 East 23d St., New York, $167,997; James P. Egan, 5 East 42d St., New York, $259,870; John Gill & Son, Citizens Bldg., Cleveland, Ohio, $184,930; North-Eastern Construction Co., 225 Fifth Ave., New York, $168,521; P. J. Carlin Construction Co., 16 East 23d St., New York, $187,400. Time, October 1, 1910.

NEW YORK, N. Y.—Bids are asked until 10.30 a. m., April 26, by Nicholas J. Hayes, Fire Comr., for furnishing all the labor and materials required for the erection and completion of a new building, hose rack and storage shed for an engine company to be located on the northerly spur of the lying-up slips of the St. George terminals, Boro. of Richmond.

Bids are asked until 11 a. m., April 26, by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, for furnishing and de-

livering direct to office or depository materials for use of mechanics (Heating Division), Building Bureau, Boros. of Manhattan and Brooklyn; for installing heating apparatus in Public School No. 25, on Lafayette Ave. and Kosciusko St., near Sumner Ave., Boro. of Brooklyn, and in new Public School No. 168, on the south side of Benson Ave., between Bay 14th St. and 17th Ave., Boro. of Brooklyn; for alterations, repairs, etc., for Public Schools Nos. 103, 109, 119, 150, 151, 159, 168, 171 and 172, Boro. of Manhattan; for alterations, repairs, etc., to Public Schools Nos. 26, 33, 34, 35, 37, 47 and 49, Boro. of Queens; for alterations, repairs, etc., at Public School No. 83, Vernon Ave., between Pierce and Graham Aves., Long Island City, Boro. of Queens.

*WEST POINT, N. Y.—Bids are asked until noon, May 15, by the Quartermaster, West Point, for supplying the U. S. Military Academy with fuel, gas coal, gas oil, and charcoal required during the fiscal year ending June 30, 1910, and for building materials, plumbing materials, gas and steam fittings, hardware, paints, glass and other miscellaneous stores.

ROCHESTER, N. Y.—Plans for a $45,000 building are being inspected by Herbert Pierce, Asst. Fire Marshal. The Aqueduct Building Co. contemplates the erection of a brick fireproof building, 68 × 73 ft., of seven stories and basement in Graves St., backing against the river and facing Butts Pl. The building will be in harmony with the Aqueduct building, just south of it and owned by the same corporation. The new structure will be used for a printing and publishing business. W. J. Brockett, Powers Bldg., is Arch., and the GORSLINE & SWAN CONSTRUCTION CO., Powers Bldg., has contract.

BUFFALO, N. Y.—The Lafayette Hotel Co., Clinton and Washington Sts., George W. Sweeney, Victoria Hotel, New York, Pres., will erect a 7-story addition with 175 rooms, having 120 ft. frontage on Clinton St. and 90 ft. on Ellicott St. The addition will be of steel frame construction with white terra cotta trim conforming in height, design and material to present structure. Cost, $300,000. Bethune, Bethune & Fuchs are Archs., 215 Franklin St., Buffalo.

The Buffalo Turn Verein, Charles Ullrich, Pres., 1356 Genesee St., will erect a hall, gymnasium and club building at the corner of Genesee and Kiefer Sts., on a site 111 × 184 ft. The building is to be of brick with stone trimmings, to contain baths, swimming pool, bowling alleys, cafe, etc.

H. Osgood Holland, Arch., 417 Mutual Life Bldg., has prepared plans for a stone and brick residence, 40 × 55 ft., two stories and basement, for David M. Cowan, 50 East Swan St., to be built on Soldiers Pl., near Chapin Parkway. The architect is ready for bids.

Green & Wicks, Archs., 110 Franklin St., are preparing plans for a stone, brick and structural steel residence on Lincoln Parkway, near Delaware Park, to cost $40,000, for Spencer Kellogg, Jr., 221 Linwood Ave.

BUFFALO, N. Y.—The general contract for construction of the 7-story brick and steel commercial and manufacturing building, 60 × 164 ft., with 30 × 64 ft. L, to be erected at the corner of Washington and Mohawk Sts., by Sinclair-Rooney & Co., has been awarded to the JOSEPH METZ & SONS CO., 192 Elm St., at $140,000. Subcontract for fabrication and erection of structural steel, 800 tons, has been let to the BUFFALO STRUCTURAL STEEL CO. Eisenwein & Johnson, Archts., 775 Ellicott Sq. Bldg. Noted last week.

BELMAR, N. J.—Bids are asked until 8 p. m., April 23, by the Board of Education, of the Borough of Belmar, Monmouth Conuty, N. J., at the school building on F St., Belmar, N. J., for the erection and completion of a 14-room school building with assembly hall, including the heating and ventilating apparatus and the plumbing. Plans and specifications were made by William T. Towner, Arch., 320 Fifth Ave., New York.

PHILADELPHIA, PA.—Bids have been invited for the erection of an 8-story and basement store and office building for Mershon Bros., at 13th and Spring Sts. The structure will measure 36 × 120 ft., and will be built of concrete, brick and terra cotta.

As a site for a proposed church building, St. Luke's Roman Catholic Church on Willow Grove Turnpike has purchased four lots at the corner of Lynwood Ave. and Willow Grove Turnpike, in Glenside. The property measures 155 × 310 ft. On it will be erected a stone church costing about $50,000.

An 18-story building to cost about $2,000,000, in which quarters will be provided for the Stock Exchange in case that body decides to move, is to be erected on the north side of Chestnut St., west of Broad St., adjoining the Girard Trust Co. building. The structure will be built for the Chestnut St. Realty Co. The incorporators of the new concern are Effingham B. Morris and Albert H. Jackson, Pres. and Second Vice-Pres., respectively, of the Girard Trust Co., which owns the ground on which the new building is to be built; Isaac H. Clothier, a director of the Girard Trust Co.; W. Barklie Henry, of the firm of Henry & West, bankers; John Hampton Barnes, attorney; Harry S. Black and William Chesebrough, Pres. and Vice-Pres., respectively, of the U. S. Realty Corporation, of New York. The lot on which the building is to be erected has a frontage on Chestnut St. of 120 ft. and a depth of 100 ft.

MOUNT PLEASANT, PA.—Bids are asked by M. A. King, Secy., Boro. Council, 760 West Main St., Mount Pleasant, until 8 a. m., April 20, for erecting a municipal building.

ALLENTOWN, PA.—We are officially advised that the American Union Cordials & Importing Co., Hamilton and Second Sts., East Allentown, are ready to receive bids for constructing a 2-story brick residence, 40 × 60 ft., at 448 Linden St., Allentown.

WASHINGTON, D. C.—Bids are asked by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, until 11 a. m., May 15, for constructing contagious ward building, sick officers' quarters, male nurses' quarters, female nurses' quarters, medical officer in command's quarters and two quarters for officers, at the U. S. Medical School Hospital, Washington, D. C. Specifications are on file at the office of Engineering News, New York.

Bids are asked until noon, April 17, by Elliott Woods, Supt. U. S. Capital Bldg. and Grounds, for the structural steel work for the second and third floors of the addition to the U. S. court-house, Washington, D. C.

Bids were received as follows on April 10 at the office of Bernard Green, Supt. of Construction of the new National Museum Building, Washington, for the plain and ornamental plastering in the new building, (a) the basement partitions, (b) the south pavilion: Murray Bros., Washington, D. C., (a) $7,790; (b) $24,300; John J. Roberts Co., New York, (a) $8,692; (b) $34,347; John J. Early, Washington, (a) $6,425; (b) $34,975; McNulty Bros., Inc., New York, (a) $5,700; (b) $18,000; H. W. Miller, Inc., New York, (a) $6,976; (b) $21,572.

NORFOLK, VA.—Plans have been completed by R. E. Mitchell, Arch., for the Y. M. C. A. building, to be erected at Norfolk, Va., and will be on file at the Builders' Exchange the latter part of the week.

Active steps for the erection of the proposed Protestant Episcopal pro-cathedral for this city were taken on April 8, when the convention of the Diocese of Maryland completed the purchase from the Guilford Park Co. of a tract of about 3½ acres fronting on University Parkway, Charles St. extended, the St. Paul Boulevard and 37th St., on which it is designed to build the building. The land is opposite the site of Johns Hopkins University. The frontage of University Parkway is 390 ft., on Charles St. extended 223 ft., on 37th St. 420 ft. and on the St. Paul Boulevard about 500 ft. The pro-cathedral will be of Gothic style and will have a seating capacity of about $3,000. In addition there will be a chapter house, a library building and an episcopal residence for the Bishop of Maryland. The episcopal residence will be built along the same style of architecture. The library will also be Gothic. For the reception and safekeeping of the valuable books, which are now stored in the house adjoining the Bishop's residence, on Madison Ave., the building will be substantial and fireproof. The following are interested: Joseph Packard, H. Irving Keyser, Bernard N. Baker, George R. Gaither, Judge H. D. Harlan, Douglas H. Thomas, R. Brent Keyser, William Keyser, Jr., Herbert M. Brune, Allan McLane, Capt. F. M. Colston, Blanchard Randall. Rev. William Paret is Bishop of Maryland; Henry Vaughn, Pemberton Bldg., Boston, Mass., is Arch.

FITZGERALD, GA.—Bids are asked by W. R. Bowen, County Clk., at Fitzgerald, until April 20, for the erection of a court-house to cost about $45,000. H. H. Huggins, of Roanoke, Va., is Arch.

BUCKHEAD, GA.—Morgan & Dillon, Prudential Bldg., Atlanta, have completed plans for the county almshouse to be erected near here at a cost of $75,000. The administration building to be two stories high, 56 × 45 ft., of brick with two annexes, 56 × 280 ft.

ATLANTA, GA.—Bids were received on April 12, at the office of James Knox Taylor, Supervy. Arch., Treasury Dept., Washington, D. C., for the installation of a vacuum cleaning system at the Atlanta post-office. The lowest bid received was that of the Spencer Turbine Cleaner Co., Hartford, Conn., at $3,390.

MONTGOMERY, ALA.—Frank Lockwood, 121 Adams St., is reported to have been selected to prepare plans and specifications for the high school to be erected here at a cost of $144,000.

*NEW ORLEANS, LA.—Bids are asked until 7.30 p. m., May 11, by the Board of Commissioners of the Port of New Orleans, Hibernia Bank Bldg., for the fabrication and erection of the structural steel and cast iron for any or all of the following sheds: Additions to the Celeste St. steel shed; St. Andrew St. steel shed; Bienville St. steel shed. A. C. Bail, Hibernian Bank Bldg., is Engr.; Hugh McCloskey is Pres. Bd.

MARION, OHIO.—Bids were received as follows on April 7 at the office of James Knox Taylor, Supervy. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office building at Marion, Ohio: McHenry-Beatty Co., East Liverpool, Ohio, $66,598; M. P. Wells, Philadelphia, $64,802; Luyster & Lowes, Dayton, Ohio, $72,900; John G. Unkefer & Co., Minerva, Ohio, $61,410; Durolithic Co., Buffalo, Ohio, $62,531; A. E. Stephens Co., Binghamton, N. Y., $65,775; James de Vault & Son, Canton, Ohio, $69,769; Scheurman Lumber Co., Ltd., Saginaw, Mich., $68,645; Haselton & Co., Chicago, $66,000; Buckeye Churn Co., Sidney, Ohio, $81,011; Cecil L. Saunders, Cleveland, Ohio, $65,777.

COLUMBUS BARRACKS (Columbus post-office), OHIO.—Bids are asked by H. J. Hirsch, Constr. Q. M., until 10 a. m., May 1, for the construction of an administration building, a recruit receiving barrack, a barrack for 300 men, and a fire station, at this post, including plumbing, heating, electric wiring and electric lighting fixtures.

DAYTON, OHIO.—The United Brethren Publishing House has let the contracts for the construction of their new printing plant to be located on South Market St., and which is to be eight stories high and constructed of stone, brick, steel and glass. The general contract was let to the L. P. HAZEN CO., 1610 Reading Road, Cincinnati. C. H. LYON, of Dayton, has been awarded the job of furnishing all the structural iron and steel that enters into the construction of the big building, and WARE & MOODIE, of Dayton, will do all the plumbing work. FRANK P. TRUXEL, of Dayton, has the contract for plastering. Estimated cost, $40,000.

ROCKVILLE, IND.—Brubecker & Stone, Archs., of Indianapolis, have been employed by the Tuberculosis Commission to furnish plans and specifications for the administration building, two ward buildings, a power house, heating, light and sewage system and laundry for the new tuberculosis hospital here, paying two per cent. of contract price on this work for the plans. It is thought the cost of work will reach $100,000. Mr. Brubecker with Dr. Moore, Pres. of the Commission, will proceed immediately upon the administration building plans, which they think can be gotten ready for contract advertising in about two weeks. It will be a few weeks longer before any work of construction can be done, as four weeks are required by law for advertising bids.

INDIANAPOLIS, IND.—The State Board of Health has condemned twelve schools and recommended that new buildings be constructed instead, as follows: Ayrshire school, house, Ayrshire, Pike County; Roy school house, Roy, Brown County; Deedsville school house, Deedsville, Miami County; Lagro school house, Lagro, Wabash County; Nos. 11, 12 and 13 in Marion Township, Boone County; Lebanon; Arlington school house, Arlington, Rush County; Trafalgar school house, Trafalgar, Johnson County; Beaver Dam school house, Beaver Dam, Kosciusko County; Parris Crossings school house, Parris Crossings, Jennings County; Velpen school house, Velpen, Pike County; Louis Creek school, Louis Creek, Shelby County, and a district school house in each of the following counties: Boone, Lebanon, Putnam, Greene Castle, Dubois, Jasper, Lawrence, Bedford, Hendricks, Danville and Jay.

Plans for a 9-story business block at the southeast corner of Washington St. and Capitol Ave., which will replace the old Masonic Temple building, have been submitted to the Building Inspector for approval. The building will cost approximately $200,000, will be occupied by D. Sommers & Co., and will be erected by the Bernard Realty Co.

RICHMOND, IND.—Judge D. W. Comstock has ordered plans upon which to ask for bids for the construction of a vitrified brick and stone business block on Main St. The structure will be four stories high.

LEBANON, IND.—The Commissioners of Boone County have advertised for plans upon which to ask for bids for the construction of a new court house. Estimated cost, $250,000.

It is stated that WILCOX BROS. have secured the contract for remodeling the jail and erecting a new building for insane patients.

CHICAGO, ILL.—The Cort Theater, to be built soon at 76 to 82 Dearborn St. by a company headed by John Cort, has been designed largely on the lines of the open-air Greek theater at Taormina by J. E. O. Pridmore, Arch., First National Bank Bldg. The lot has a frontage of 82 ft., and on account of this all the seats will be grouped comparatively close to a very wide stage opening. The auditorium balconies will be built on the cantilever principle, no columns interrupting the view from any seat. The exterior will be in classic style, the materials being gray granite, terra cotta and a warm shade of face brick in the panels with a green Italian tile roof.

DANVILLE, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 12, for the installation of plumbing, drainage and gas-piping systems in the U. S. post-office and court-house, at Danville.

*DANVILLE, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., May 12, for the installation of a heating and ventilating apparatus in the U. S. post-office and court-house, Danville, Ill.

MILWAUKEE, WIS.—We are advised by Paterson & Davidson, Engrs., Monadnock Block, Chicago, Ill., that F. E. Davidson, Arch., is designing for the Geuder, Paeschke & Frey Co., of Milwaukee, a 5-story and basement mill constructed warehouse. Building will be equipped with two electric freight elevators, steel fire doors, sheet metal windows and skylights, etc. It will be wired for electric lighting. Bids will be taken about May 1. Estimated cost of building, $60,000.

ST. PAUL, MINN.—Sketches are being prepared by E. L. Masqueray, Arch., 312 Dispatch Bldg., for a 3-story pressed brick and cut stone fireproof dormitory to be built at St. Thomas College, city. Rev. H. Moynihan is Pres. Cost, $60,000.

Plans are being prepared by C. H. Johnston, Arch., 712 Manhattan Bldg., for a pressed brick and cut stone residence for John R. Mitchell, Pres. of the Capital National Bank. It will be three stories high, having slate or tile roof, mosaic and tile floors, steam heating and electric lighting. Cost, $40,000.

Postle & Mahler, Archs., 706 Germania Life Bldg., are preparing plans for a printing plant and warehouse for Brown & Bigelow, manufacturers of advertising specialties, Drake Block. It will be fireproof, of pressed brick and cut stone construction, with steam heating and electric lighting. Cost, $300,000.

Alban & Fisher, Archs., Chamber of Commerce Bldg., has awarded the contract for building the superstructure for Bethesda Hospital, Ninth and Wacouta Sts., to OLAF SWENSON, 945 Clark St., city, at $45,000.

ST. LOUIS, MO.—The Pendleton Investment Co., a holding corporation for Rutledge & Kilpatrick Realty Co., 717 Chestnut St., will expend approximately $75,000 on three apartment houses to be erected on a portion of the Doctor Gamble property, facing Amherst Pl., between Julian and Woodland Aves. Plans and specifications have been prepared and excavations for one of the buildings has been begun. The property has a frontage of 147 ft. on Amherst Pl. by a depth of 117 ft. Each of the three apartments will be three stories high, of brick and terra cotta construction, and will contain six apartments of eight rooms.

An apartment house is to be erected by B. M. Nevins at the southwest corner of Cates and Belt Aves. It will be three stories high and will contain apartments of five and six rooms each. The building will cover practically the entire lot, which is 150 ft. square. Henry A. Wag[illegible] plans and specifications, and prepared the [illegible]. E. L. WAG[illegible] NER CONSTRUCTION CO. [illegible] Victoria Bldg., has the contract. The exterior of the building is to be of modern [illegible] French lines. The entrance [illegible] XVI style, with tiled floors [illegible] wainscoting. The public halls [illegible] will be Louis [illegible] and marble [illegible] and bedrooms [illegible] hogany. The dining rooms [illegible] and ma[illegible] wainscoting and beam ceil[illegible] have panel[illegible] design, all of hardwood.

FORT BAYARD, N. MEX.—We are officially advised that bids [illegible] received at Fort Bayard on March 16 [illegible] construction, etc., of (a) three double [illegible] of captains' quarters, (b) one nurses' qu[illegible]s. The following contracts have been a[illegible] for construction, etc.: J. A. HARL[illegible] Fort Bayard, N. Mex., has been a[illegible] for construction proper of th[illegible] contract of captains' quarters at $2[illegible] double sets one nurses' quarters at $2[illegible] each, and all, $87,800. M. M. SUNDT, E[illegible] total for N. Mex., has been awarded [illegible] Las Vegas, construction of medical storeh[illegible] contract for and laundry building at $7,6[illegible] at $7,455, 125. EMPORIA PLUMBING [illegible] total, $15,- Kan., has been awarded [illegible] Emporia, plumbing and heating in all th[illegible] for all above buildings, for a total sum of $1[illegible] above buildings, for a total sum of $1,507. KRAUSHAAR BRASS MFG. CO., St. L[illegible] Mo., has been awarded contract for electric light fixtures, excluding Watt meters, in all the above buildings, for a total sum of $1,507. Contract for laundry machinery has not been awarded. All bids for electric wiring in the above buildings have been rejected. This work is being readvertised. Bids will be opened May 8.

PORTLAND, ORE.—Bids are asked until April 17 by the Portland Railway, Light & Power Co. to erect at once a 9-story office building over the sub-station at the corner of 17th and Alder Sts. The general offices will be moved into the new structure upon its completion and the First and Alder Sts. headquarters building will be rented. Work will start at once upon the building, and it is expected to have it completed ready for occupancy by Sept. 1. It is estimated that the cost will be $250,000. A preliminary contract has been arranged with the HURLEY-MASON CO. The present sub-station will be retained in the basement of the building. The first two floors will also be given over to the machinery that now occupies the sub-station, together with the storage battery and additional apparatus to be installed to feed the underground distributing system. The company will require three floors of the new building for its offices and the remaining four stories will be rented. The building will cover ground space 100 × 100 ft. The structure will be of reinforced concrete construction, Class A. C. L. Linde is Supt. of Bldg. Construction. A. H. Richmond, Portland, is Ch. Engr.

Plans have been drawn for a 6-story reinforced concrete building to be erected for the R. R. Thompson Estate, at Third and Pine Sts., and the old buildings are to be torn down this summer. The block is bounded by Third, Fourth, Pine and Ash Sts. The estimated cost of the building is $300,000.

EUGENE, ORE.—At a recent meeting the Elks of Eugene decided to begin work at once on the erection of a 6-story lodge building on the lot on the corner of Seventh and Olive Sts. The building, when completed, will cost about $75,000.

LOS ANGELES, CAL.—We are officially advised that Franklin P. Burnham, Arch., Pacific Electric Bldg., has been commissioned by the Los Angeles Board of Education to prepare plans for a 3-story technical school building, 80 × 162 ft., to be erected on the grounds of the Polytechnic High School on Washington St., at an estimated cost of $65,000.

Plans for five buildings to be erected at Colegrove by the Los Angeles Orphans' Home are being completed by Parkinson & Bergstrom, Archs., Braly Block. Charles M. Stimson of Pasadena gave the home a tract of five acres to be used as a site for the buildings, it being provided that the land shall revert to Mr. Stimson if the construction of the buildings is not begun in a specified time. The buildings will cost about $75,000.

RIVERSIDE, CAL.—Bids are asked by the Commissioner of Indian Affairs, Washington, D. C., at the Indian Office, until 2 p. m., April 19, for furnishing and delivering the necessary materials and labor required to construct and complete an addition to the storehouse at Sherman Institute, Riverside.

OAKLAND, CAL.—Plans for the erection of the proposed Y. M. C. A. building at the corner of 21st St. and Telegraph Ave. have been prepared. The proposed building will be a 4-story structure, with a sub-basement and a basement, all of which will be devoted to the purposes of the Y. M. C. A. B. B. Wilcox is State Secy.

BERKELEY, CAL.—Work will be commenced shortly on the Berkeley Hotel. The initial construction work will involve $125,000, but later a hotel in central Berkeley to cost $1,000,000 is planned. The building will be a Class A structure, five stories high, of pressed brick with a frontage of 80 ft. on Shattuck Ave. and 150 ft. on Allston Way. The first floor will be divided into stores, while the upper floors will be a large hotel with many suites, similar to the Carlton Hotel of this city. Construction work will begin at once. William E. Woolsey is interested.

FORT MASON (San Francisco post-office), CAL.—Bids were received on March 24 by Major George McK. Williamson, Q. M., U. S. A., for constructing one barrack building, one band barrack building and three double N. C. O. quarters, also installing heating, plumbing and electric wiring in same. The following contracts have been let: PRINGLE, DUNN & MOSTRIP, San Francisco, Cal., for constructing one double

barrack, $5[illegible]0, constructing one band barrack, $14,1[illegible] constructing three double N. C. O. quarters, $15,150. JOHN SUTTON, San Francisco, Cal., for plumbing double barrack, $8[illegible]0; band barrack, $1,748. N. C. O. quarters, $1,839. BURNHAM PLUMBING CO., San Francisco, Cal., for heating barrack, $4,0[illegible] heating band barrack, $1,325. JOHN SUTTON, San Francisco, Cal., for wiring in three buildings, respectively, $862, $222 and $429.

MONTREAL, QUE.—Bids are asked by W. J. White, Y.-Treas. Bd. of the Montreal Technical School, Montreal Street Ry. Bldg., until noon April 24, for work in connection with the erection of the buildings for the Montreal Technical School.

OTTAWA, ONT.—Bids are asked until noon, April 27, by P. E. Ryan, Secy. Comrs. of the Transcontinental Ry., Ottawa, for the construction and erection complete, in accordance with the plans and specifications of the Commissioners, of station buildings, section and tool houses, etc., as follows, viz.: Section No. 1—From Lake Superior Junction to Mile 1629 (near Wabigoon River): Four No. 3 station buildings, two No. 3 station buildings, five section houses. Section No. 2—From Mile 1629 to Mile 1729 (N. E. of Redditt): One No. 1 station building, two No. 2 station buildings, three No. 3 station buildings, six section houses. Section No. 3—From Mile 1729 to St. Boniface: Two No. 1 station buildings, two No. 2 station buildings, three No. 3 station buildings, three section houses. Tool houses will be required at all section houses, and at such other points as may be designated by the Engineer. Hugh D. Lumsden is Ch. Engr., Ottawa, Ont., and S. R. Poulin, District Engr., Winnipeg, Man.

VANCOUVER, B. C.—Competitive plans will be received by the British Columbia Electric Ry. Co., Ltd., until May 1, for an office and terminal building to cost about $200,000. R. H. Sperling is Gen. Mgr.

## WATER SUPPLY—IRRIGATION.

*(* denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Contract for furnishing 66 tons c.-i. water pipe, bids opened April 7, has been awarded by the Water Commissioners to the FLORENCE IRON WORKS, 400 Chestnut St., Philadelphia, Pa., at $34.90 per ton.

BROOKLINE, MASS.—The citizens voted on March 30, it is stated, to appropriate $100,000 for a covered reservoir on Single Tree Hill for use of the high-service water supply, and $50,000 for the separation of the sewage and surface water drainage system.

NEW YORK, N. Y.—Bids are asked until 2 p. m., April 15, by John H. O'Brien, Comr. Water Supply, Gas and Electricity, for furnishing and delivering double-nozzle standard New York hydrants and repair parts for the same.

MOUNT MORRIS, N. Y.—J. F. Witmer, Consult. Engr., Buffalo, N. Y., has completed plans for the water-works system for the village. Bids will soon be asked by the Board of Village Trustees. The construction work will include 7¼ miles of standard c.-i. water mains, 75 double-nozzle fire hydrants, 64 gate-valves, pumping station, building and equipment. Estimated cost, $44,000.

*NEW YORK, N. Y.—Bids were received on April 8 by the Board of Water Supply for Contract 46, for the construction of a portion of the Catskill aqueduct, consisting of Millwood, Sarles, Harlem Railroad, Pleasantville and Reynolds Hill tunnels, Putnam siphon and Millwood-South, Sarles and Pleasantville cut-and-cover. The tunnels are 17 ft. high by 13¾ ft. wide inside and aggregate about three miles. Of the remainder about 2.5 miles are standard cut-and-cover 17 ft. high by 17½ ft. wide inside, and about 2,000 ft. are cut-and-cover of special design. The work is located about four miles east of the Hudson River in the towns of New Castle and Mount Pleasant, Westchester County. The bids follow: Booth & Flynn, Pittsburg, Pa., $2,598,260; Buffalo Dredging Co., Buffalo, N. Y., $3,161,555; Degnon Contracting Co., 60 Wall, et 500,000; Gere-Meenan Co., 206 Broadway, $2,864,025; George W. Jackson, Inc., Chicago, Ill., $2,780,880; American Pipe & Construction Co., Philadelphia, $2,695,495; Bradley Contracting Co., 1 Madison Ave., $2,710,555; J. H. Gray Co., Fuller Bldg., $2,600,735; Mason-Hanger Co., Richmond, Ky., $2,688,878; John C. Rodgers, 121 West 125th St., $3,-121,436. All bids were rejected.

*NEW YORK, N. Y.—The Board of Water Supply on April 12 awarded contract to the AMERICAN PIPE & CONSTRUCTION CO., 112 North Broad St., Philadelphia, Pa., at $1,358,695, for contracts Nos. 17 and 18 combined, for the construction of about 14,-600 lin. ft. and about 15,600 lin. ft. respectively, of plain concrete conduit, known as cut-and-cover aqueduct, 17 ft. high by 17½ ft. wide inside. The work is located in the towns of Shawangunk, Ulster County, and Montgomery, Orange County, about eight miles northwest of Newburg. Bids or proposals were asked for either or both contracts separately and for both contracts combined, any bidder to make a bid for either contract, or for both contracts combined. Itemized bids for contract No. 25 are given in this issue.

NEWBURGH, N. Y.—The Water Board has reported that $158,000 is necessary for the enlargement of the water-works. An election will be held in May to vote on issuing bonds. D. J. Contant is City Clk.

HOBOKEN, N. J.—The House has passed the bill authorizing the city to issue $33,000 of water bonds to relay, enlarge and extend water mains.

*PHILADELPHIA, PA.—The following are the approximate aggregate bids opened by the Department of Public Works, on March 31, for the proposed Queen Lane filtration plant: Millard Construction Co., Pennsylvania Bldg., $1,832,000, 14 months; Lupton-McDermott Co., (four bids), $2,008,228, 12 months; $2,035,546, ten months; $1,074,575, 15 months, and $1,930,542, 18 months; Robert Petrielo, $1,961,008, 19 months; David Peoples, $1,963,443, 15 months; Mack Paving Co., $1,972,460, 18 months; American Pipe Co., $1,998,901, 18 months; Westwater & Casey, $2,067,970, 12 months. George R. Stearns is Dir. Pub. Wks.

HAZLETON, PA.—Bids will be received until April 22 by the Diamond Water Co., P. F. Boyle, Pres., for building a dam, reservoir, etc., near Hazelton.

ALTOONA, PA.—Bids will be received by the Board of Water Commissioners, H. K. McCauley, Chn., until April 22, for the continuing of the construction of Lake Altoona, with accessories. Knight & Hopkins are Consult. Engrs., Rome, N. Y.

BARTON HEIGHTS (Richmond post-office), VA.—The city has issued $15,000 of bonds for water-works and general improvement. Bids are asked for drilling deep well and installing boilers and pumps. Alfred Benson is Chn. Com. in Charge.

GAFFNEY, S. C.—The city has voted $125,-000 of bonds for the extension of the water-works system and construction of sewer system. W. H. Ross is Mayor.

PALMETTO, FLA.—Benjamin Thompson, Tampa, Fla., has completed plans for the proposed system of water-works for which $15,000 of bonds have been voted. A well 600 ft. deep has been driven.

MERIDIAN, MISS.—This city has voted to issue bonds for the improvement of the present water system. C. C. Dunn is Pres. Water Commission. W. F. Wilcox is Supt. W.-Wks.

BLUFF CITY, TENN.—S. Hodge and others are having surveys made for the construction of a gravity system of water-works, for which a franchise has been secured. The water is to be secured from Underwood's Springs, seven miles away, with an elevation of 300 ft. above the city.

ELYRIA, OHIO.—Bids will be received by the Board of Public Service until April 22 for furnishing water meters.

LORAIN, OHIO.—Bids will be received by the Board of Public Service until April 22 for furnishing and delivering one deep well pump.

SALEM, IND.—We are officially advised that KERN SHRUM, Salem, has been awarded contract by the city for construction and building extension to the water-works system, at $16,036. Bids were opened on April 5. G. C. Prow is City Engr.

LINCOLN CITY, IND.—B. F. Bridges, Comr., is asking for bids for the construction of a water-works system at the Nancy Hanks Lincoln Park.

ELKHART, IND.—A new franchise granted the Elkhart Water Works Co. obligates the company to expend $50,000 in improvements at an early date.

GRAND RAPIDS, MICH.—This city has voted to issue $200,000 of bonds for the extension and improvement of the water-works system. Louis W. Anderson is City Engr.

ROCK ISLAND, ILL.—All bids for the construction of a complete mechanical filtration plant at the river front have been rejected by the city, and the engineers will prepare plans for a plant at the reservoir station. John W. Alvord, of Chicago, and George P. Prince, of Denver, Colo., are Consult. Engrs. Wallace Treichler is City Engr.

OAK PARK, ILL.—CHARLES M. PORTER, 84 La Salle St., Chicago, has been awarded the contract by the city to construct water-works, bids opened on March 23, at $89,570. Other bidders were as follows: T. H. Iglehart, Morgan Park, $92,-099; D. F. Healy, Coffeyville, Kan., $94,975; Malachy Murphy, 5315 Wabash Ave., Chicago, $95,066; H. G. Goelitz, Oak Park, $96,-238; John H. McCarthy, 2415 Washington Boulevard, Chicago, $96,663. The John M. Healy Co., (N. I.), Suite 911, Chicago Opera House Blk., Chicago, $97,614; James J. Lynch, Chamber of Commerce Bldg., Chicago, $98,910; Alexander N. Todd, Chamber of Commerce Bldg., Chicago, $102,202; Standard Construction Co., 1548 First National Bank Bldg., Chicago, $103,372; John Green, 1003 Chamber of Commerce Bldg., Chicago, $103,767; The Union Engineering & Construction Co., 1424 First National Bank Bldg., Chicago, $105,019; Nash-Dowdle Co., 145 La Salle St., Chicago, $111,746. R. C. Carpenter is Comr. Pub. Wks.

BLOOMINGTON, ILL.—The sum of $20,700 has been appropriated by the Legislature, it is stated, for securing a water supply for the Indiana University of Bloomington, and the Board of Trustees has decided to sink test wells.

*PLATTEVILLE, WIS.—The time for receiving bids on the deep well pumping system has been extended until 7.30 p. m., April 16. Bids were to have been opened on April 2. W. G. Kirchoffer is Engr., Madison, Wis.

LA CROSSE, WIS.—JAMES A. TRANE, 118 South Fifth St., has been awarded contract by the city for about 19,768 lin. ft. of 12 and 6-in. pipe, bids opened on April 2, at $6,000.

RIPPEY, IOWA.—The citizens are reported to have voted to issue $7,000 of bonds for water-works.

BENSON, MINN.—Bids are asked until 8 p. m. April 20, by Otto J. Olson, City Clk., for the construction of a steel water tower.

BEMIDJI, MINN.—Bids are asked until 8 p. m., April 19, by Thomas Malay, City Clk., for sinking an artesian well, to be finished with 10-in. casing.

*CHEYENNE, WYO.—We are officially advised that the U. S. PIPE & FOUNDRY CO., Rookery Bldg., Chicago, Ill., has been awarded contract by the city for furnishing 16, 20 and 30-in. water pipe, at $260,814.

The M. J. O'FALLON SUPPLY CO., of Denver, Colo., secured the contract for 200 tons of pig lead at $84 per ton and 15 tons of oakum at $79 per ton. Bids were opened on April 5. J. D. Wright is City Clk.

NOWATA, OKLA.—The O'Neil Engineering Co., of Dallas, Tex., will have charge of the proposed water and sewage improvements. H. Y. Yarnett is City Clk.

LINDSAY, OKLA.—Contracts were awarded as follows on April 2 by the Town Trustees for water-works construction: To BRIGGS-WEAVER MACHINERY CO., Dallas, Tex., all machinery, at $4,590; to CHICAGO BRIDGE & IRON WORKS, tank and tower, at $4,140; to CENTRAL FOUNDRY CO., New York, water mains, 4-in., 41 cts.; 6-in., 63 cts.; 8-in. 86 cts.

MINCO, OKLA.—See item under Light and Power Plants.

GREELEY, COLO.—The Henrylyn Irrigation district on April 1 filed with the County Clerk plans and specifications for its reservoir, to be known as the Jim Creek No. 2. The district is in the southern part of Weld County, near Denver. The reservoir is to cost $201,185, and will hold 954,544,800 cu. ft. of water. The water will be obtained from the South Platte River through the Denver and Hudson ditches and through the drainage canal of Jim Creek No. 2.

WHITE SALMON, WASH.—Bids will probably be asked in June for the construction of water-works. Estimated cost, $60,000. W. L. Wilcox is City Secy.

OAKLAND, CAL.—Plans and specifications for the auxiliary salt water plant pipe system were adopted at a meeting of the Board of Works on March 31 and the secretary was authorized to advertise for bids, both for the delivering of and laying of the pipe throughout the business section of the system, which will be enlarged from time to time as money is available.

SALT LAKE CITY, UTAH.—Bids will be received until April 23 by the Board of Public Works, H. G. McMillan, Chn., for constructing all water mains that have been or may be ordered by the City Council to Nov. 30, 1909. Louis C. Kelsey is City Engr.

PETERBORO, ONT.—The rate-payers on March 30 voted in favor of issuing bonds for $120,000 to construct a new water-works dam and increase the pumping capacity.

## SEWERAGE.

*(* denotes that this work is advertised in Engineering News.)*

PROVIDENCE, R. I.—FRED E. SHAW, 75 Westminster St., has secured the contract for constructing sewers, bids opened on March 29, at $19,416.

HARTFORD, CONN.—At the city election on April 6, appropriations for $200,000 for the East Side interceptor sewer, and $12,-000 for the Homestead Ave. interceptor sewer were voted. Work on the sewers will be advertised for as soon as plans can be prepared.

NEW BRIGHTON (S. I.), N. Y.—Bids will be received until noon, April 20 by George Cromwell, Pres. Richmond Boro., New Brighton, for constructing sewers in Richmond Turnpike and Sewerage district No. 2-A, and cement sidewalks and reflagging Castleton Ave.

ROCHESTER, N. Y.—The Streets and Sewers Committee of the City Council has under consideration the ordinance providing for the construction of the Bingham St. sewer. Estimated cost, about $60,000. Edwin H. Fisher is City Engr.

NEW YORK, N. Y.—Bids will be received until April 20 by Louis F. Haffen, Pres. Boro. of the Bronx, for constructing sewers and appurtenances in portions of Woodlawn Road, Park, Decatur, Clay, Lind, Randall Aves., Manila and East 170th Sts., requiring in all 5,946 lin. ft. of from 10 to 30-in. pipe sewer.

GLOVERSVILLE, N. Y.—Bids will be received until April 30 by the city for the construction of 4,000 ft. of 8 and 10-in. sewer pipe line, Morrell Vrooman is City Engr.

UTICA, N. Y.—The Board of Contract and Supply on April 6 rejected all bids for the construction of storm water sewer system, James E. Martin was the low bidder, at $14,423.

SYRACUSE, N. Y.—Bids are asked until noon, May 18, by the Intercepting Sewer Board for the construction of a portion of the main intercepting sewer with connections, etc. Harry T. Hamlin is Secy. Bd.

*MILLVILLE, N. J.—The lowest bid opened on April 2 by the City Council for constructing the sewage purification plant was submitted by and awarded to THOMAS & WATKINS, of Woodbury, at $22,224.

PITTSBURG, PA.—Bids will be received until April 19 by the City Controller for the construction of sewers in portions of numerous streets, including Hudson, Marlboro and Alden Aves., Sheridan, Dean, Wallace and other streets, and Dean Pl. N. S. Sprague is City Engr.

CHESWICK, PA.—Bids are asked until 6 p. m., April 17, for the construction of a sewage disposal plant. G. B. Roessing is Boro. Secy.

HUNTINGDON, PA.—The House has passed the bill appropriating $37,000 for the construction of a sewage disposal plant for the Huntingdon Reformatory.

McKEESPORT, PA.—Plans are to be prepared for a sewage disposal plant for McKeesport. Estimated cost, about $500,000, the plans to be submitted to the State Department of Health by July 1.

WILKES-BARRE, PA.—Contracts for furnishing and delivering sewer pipe and fittings, constructing sewers on 33 streets and protecting the Horton St. sewer outlet, have been awarded as follows: Section 1, to the D. M. ROSSER ENGINEERING & CONSTRUCTION CO., of Kingston, at $11,419; Section 2, to C. M. RILEY, of Wilkes-Barre, at $19,978; Section 3, to the PENNSYLVANIA SEWER CO., at $17,049; for furnishing sewer pipe to GEORGE N. McALARNEY, of Wilkes-Barre, for all three sections, at $9,158.

WINCHESTER, VA.—The City Council on March 31 awarded contract for installing a sanitary sewer system to IRWIN BROS., of Greenville, Ohio, at about $33,000. Work is to begin at once and to be completed in five months. Bonds to the amount of $50,000 were issued for a sewer system.

GAFFNEY, S. C.—The citizens have voted to issue $120,000 of bonds for the construction of a sewerage system.

LOUISVILLE, KY.—The contract for constructing section G, southern outfall sewer, contract No. 29, bids opened on March 26, has been awarded by the Commissioners of Sewerage to the BLACKSTAFF ENGINEERING CO., of Philadelphia, Pa., at $85,428. Other bids were as follows: C. T. McCracken & Co., Columbus, Ohio, $92,151; T. J. O'Connor, Boston, Mass., $106,980; E. G. Nave Bros. Co., Portsmouth, Ohio, $125,000. J. B. F. Breed is Ch. Engr.

FULTON, KY.—We are officially advised that the city is having surveys made for sewer and street improvement covering about ten miles of streets. Prices are asked on sewer pipe, etc. T. D. Johnson, Jr., is City Engr.

NEWBURGH (Cleveland post-office), OHIO.—Bids are asked until noon, May 3, by E. T. Lawrence, Clk. Bd. Pub. Ser., for the construction of sewers in several streets. William H. Evers Engineering Co. are Engrs., 237 The Arcade, Cleveland.

YOUNGSTOWN, OHIO.—Bids are asked until noon, April 22, by the Board of Public Service for sewering and repaving a portion of East Federal St. W. H. McMillin is Clk.

INDIANAPOLIS, IND.—Under the new stream pollution law this city will be required to build a sewerage disposal plant estimated to cost $1,000,000. Steps are being taken to secure a site for the plant. B. H. Miller is City Engr.

Bids are asked until April 20 by the Board of Public Works for constructing concrete, brick or pipe sewer. Estimated cost, $40,-000.

FARMER CITY, ILL.—Bids for constructing the sewer system here were opened on April 6. The contract was awarded to HOWES BROS., of Chicago, at $16,886.

*WEST ALLIS, WIS.—Bids are asked until noon, April 20, by the Board of Public Works, W. E. Geilmyer, Chn., for constructing sewers, and for the construction of septic tanks, contact-filter beds or sewage purification plants, with all necessary connections, outlets, filters, etc.

JEFFERSON, WIS.—The contract for constructing 13,000 ft. of sewers, bids opened on March 30, has been awarded by the city to JAMES McCABE, of Fond du Lac, at $7,454. G. J. Loetz is City Clk.

JANESVILLE, WIS.—Bids are asked until 2 p. m., May 4, by the Street Assessment Committee for 3,940 ft. of 8-in. sewers. C. V. Kerch is City Engr.

BURLINGTON, IOWA.—Bids will be received until 4 p. m., April 19, by the City Clerk for the construction of pipe sewers. John F. Winters is City Engr.

SIOUX CITY, IOWA.—The lowest bid opened on March 30 by the city for the Smith's Villa storm sewer was submitted by J. M. Lewis at the following prices: 48-in. brick sewer, $3.80 per ft.; 18-in. pipe sewer, $1.05; 15-in. pipe sewer, 62 cts.; catch-basins, $39.50 each, and manholes, $38 each.

CLAY CENTER, KAN.—The contract for constructing main sewers in Clay Center, bids opened on March 29, has been awarded by the city to E. D. REED, of Clay Center, at $9,461. G. S. Martin is City Clk.

TOPEKA, KAN.—Bids for the Kenwood sewer were opened on April 5 by the City Council. The contract was awarded to McGUIRE & STANTON, of Leavenworth, at $22,416 or almost $10,000 less than the estimates made by the City Engineer. The next lowest bidder was W. W. Cook & Son, of Junction City, at $27,044.

NEBRASKA CITY, NEB.—C. W. Pierce, City Engr., has been instructed to prepare plans for the construction of two lateral sewer districts.

YOAKUM, TEX.—The city will grant a franchise for the construction of a sewerage system and would like to receive offers. W. F. Adams is City Secy.

ENID, OKLA.—Bids will be received until noon, April 23, by E. R. Lee, City Clk., for constructing about 3,300 ft. of storm sewer.

DENVER, COLO.—Bids were opened on March 27 by the city for constructing sewers in sub-districts Nos. 2, 3, 4 and 6 of the North Denver storm sewer district No. 1. Contracts have been awarded as follows: To the DENVER & PUEBLO CONSTRUCTION CO., of Denver, for districts Nos. 2 and 6, at $16,069 and $15,021, respectively; to W. M. PORTER, for districts Nos. 3 and 4, at $15,369 and $18,347, respectively.

*JULESBURG, COLO.—We are officially advised that bids were opened as follows on April 3 for the construction of a sanitary sewer system for sanitary sewer district No. 1: Dye Bros., Julesburg, Colo., $19,985; J. W. Turner Improvement Co., Des Moines, Iowa, $19,050; S. G. MANGDON, Des Moines, Iowa, $15,077 (awarded contract); Katz-Craig Construction Co., Omaha, Neb., $19,-356; James C. Whedbee, Fort Collins, Colo., $23,734; Doyle & Schwartz, Colorado Springs, Colo., $20,587; Seerle Bros., Denver, Colo., $22,940; Stein & Jensen, Sedgwick, Colo., $19,719; Conrad Walker, North Platte, Neb., $18,272.

SALT LAKE CITY, UTAH.—Bids will be received until 8 p. m., April 23, by the Board of Public Works, H. G. McMillan, Chn., for constructing pipe sewers in sewer extension No. 227. Louis C. Kelsey is City Engr.

HAMILTON, ONT.—The Sewer Committee has decided to construct sewers in the annex on Chase, Emily and Clinton Sts. Estimated cost, $16,000.

## GARBAGE DISPOSAL.

COLUMBUS, OHIO.—Bids will soon be asked by the Board of Public Service for the construction of the garbage disposal plant.

Bids were opened on March 31 by the Board of Public Service for furnishing, delivering and installing machinery and equipment for the garbage reduction plant adjacent to Scioto River, Franklin Township (contract No. 4) as follows: L. G. Finley & Co., $22,285; W. H. Conklin & Co., $21,143; W. H. Seddon Plumbing & Heating Co., $23,323; Huffman, Conklin & Co., $22,577; Fitzpatrick & Hoepfner, $21,796; Rootsville Foundry & Machine Co., $27,379; Simmons Engineering Co., Indianapolis, Ind., $19,945. E. W. Hirsch is Secy. Bd.

MILWAUKEE, WIS.—We are officially advised that the following bids were received on March 31, by the Board of Public Works for the proposed refuse incineration plant: Universal Destructor Co. New York, $174,987; Macdonald Engineering Co., Monadnock Bldg., Chicago, Ill., $150,782; Lewis & Kitchen, 433 Wabash Ave., Chicago, Ill., $175,371; POWER SPECIALTY CO., 111 Broadway, New York, $174,384 (awarded contract). The contract for constructing the radial chimney of buff brick, 131 ft. 4 ins. high above the foundations and 10 ft. internal diameter at the top, has been awarded to the M. W. KELLOG CO., of Chicago, at $4,485. Samuel A. Greeley is Res. Engr.

## STREETS AND ROADS.

*(* denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids will be received by the Charles River Basin Commission, until 2.30 p. m., April 26, for surfacing and grading Section 1 of the Boston Embankment which extends along the Boston side of the Charles River from the Cambridge Bridge to Berkeley St. The work will require about 15,000 lin. ft. of trench in which to lay pipes which will be furnished by the Commission; 7 manholes; 63 catch-basins; 4,200 lin. ft. of granite edge-stones; 7,000 cu. yds. of gravel; 1,400 sq. yds. of vitrified brick gutters; 2,200 tons of broken stone; 4,500 sq. yds. of granolithic walks; and 20,000 cu. yds. of loam. Gravel and loam will be measured in place. The work to be done includes the laying of pipes for water supply, drains and electric wires; the construction of service boxes, manholes and catch-basins; laying granite edgestones and brick gutters; building gravel and granolithic walks and bituminous macadam roadway; and placing loam upon the embankment and seeding it for grass. Hiram A. Miller is Ch. Engr.

WATERTOWN, MASS.—We are officially advised that bids were received on April 5 by the Metropolitan Park Commission as follows for grading, surfacing and other work through U. S. Arsenal, Charles River Reservation, from Arsenal to North Beacon Sts., Watertown: B. Perini & Co., South Framingham, $23,430; Peter F.Connoly, Jamaica Plain, $19,689; Richmond F. Hudson, Melrose, $18,596; Luigi C. Carbia, Boston, $18,424; H. M. McBride & Co., Brighton, $18,288; Rowe Contracting Co., Brighton, $17,765; Frank Williams & Co., Boston, $17,296; Charles G. Craib, Boston, $17,189; T. H. Gill Co., Somerville, $16,744; JOHN J. MARTIN & PIERCE CONDON, Watertown, $14,580 (awarded contract).

BOSTON, MASS.—Bids will be received by the Charles River Basin Commission, Henry D. Yerxa, Chn., until April 26, for surfacing and grading Section 1 of the Boston embankment.

HARTFORD, CONN.—The contract for paving Capitol Ave., from Park River to Laurel St., with asphalt has been awarded to the SOUTHERN NEW ENGLAND PAVING CO., at $5,783, the detailed prices being as follows: Asphalt, $1.65 per sq. yd.; excavating, 67 cts. per cu. yd.; concrete foundation, $6.35 per cu. yd. Noted last week.

HARRISON, N. Y.—Bids will be received by Frank E. Coxe, Town Clk., until April 23 for paving Halstead Ave. with brick, about 19,200 sq. yds. John M. Farley, of White Plains, is Engr.

GLOVERSVILLE, N. Y.—Bids will be received by the Common Council until April 20 for the construction of 21,000 sq. yds. of vitrified brick, asphalt block or bitulithic pavement and setting 10,000 ft. of curb.

SYRACUSE, N. Y.—The Board of Contract and Supply on March 29 rejected all bids for repairing and resurfacing asphalt pavements during the present year. H. C. Allen is City Engr.

BUFFALO, N. Y.—The GERMAN ROCK ASPHALT & CEMENT CO., D. S. Morgan Bldg., has secured contract to repair all asphalt streets to July 1, 1900, at 95 cts per sq. yd., and for repaving Richmond, at $78,290 for an asphalt pavement on concrete base. F. G. Ward is Comr. Pub. Wks.

ALBANY, N. Y.—The bids received on April 5 by the Board of Contract and Supply for the improvement of West Lawrence and Kent Sts. were: (a) pavement on gravel foundation; (b) pavement on concrete foundation: Michael F. Dollard, (a) $8,975, (b) $9,589; M. Kantrowitz, (a) $8,016, (b) $8,548; Hudson Valley Concrete Block Co., (a) $9,700, (b) $10,367; J. M. Holler, (a) $8,208, (b) $9,337. Bidders all of Albany. Walter Melius is City Engr.

BROOKLYN, N. Y.—Bids were received as follows on April 7 by Bird S. Coler, Boro. Pres., for (a) regulating, paving and repaving with asphalt pavement on a concrete foundation the roadway of Fifth Ave., from Bay Ridge Ave. to 86th St., together with all work incidental thereto; (b) regulating and repaving with asphalt pavement on a concrete foundation the roadway of Fulton St., between Hanover Pl. and Flatbush Ave.; between Fulton St. and Fifth Ave., both sides, and the east side of Flatbush Ave., between Fifth Ave. and Plaza St., together with all work incidental thereto: (a) Brooklyn Alcatraz Asphalt Co., 407 Hamilton Ave., $29,958; Cranford Co., $30,031; Warren Asphalt Paving Co., $34,751; Standard Asphalt & Rubber Co., $32,429; Uvalde Asphalt Paving Co., $34,165; Barber Asphalt Paving Co., 30 Church St., $33,744; (b) Brooklyn Alcatraz Co., $51,231; Cranford Co., 52 Ninth St., $51,100; Warren Asphalt Paving Co., $53,118; Uvalde Asphalt Paving Co., $60,311; Barber Asphalt Paving Co., $50,906.

BROOKLYN, N. Y.—Bids are asked until 11 a. m., April 28, by Bird S. Coler, Boro. Pres., for regulating, grading, curbing and laying sidewalks on various streets.

*FORT WOOD (New York post-office), N. Y.—We are officially advised that bids were received as follows on April 12 by Lieut. William W. Bessell, Constructing Q. M., U. S. A., for top-soil and seeding, sodding, repairing terraces and granolithic walks at Fort Wood: McHarg-Barton Co., top-soil and seeding, $3,900; sodding and repairing terraces, $2,370; repairing walks, $75. Charles L. Doran Construction Co., top-soil, $2.25 per cu. yd.; sodding and repairing terraces, $25 per M. sq. ft.; seeding, $50 per acre; repairing walks, $18 per sq. ft.

RIO GRANDE, N. J.—The contract for constructing the county road from the Mainshore at Rio Grande to Holly Beach City, Cape May County, has been awarded, it is stated to A. H. LUPTON, of Bridgeton, at $56,104.

HACKETTSTOWN, N. J.—Bids will be received until April 29 by the Board of Chosen Freeholders, J. R. Thatcher, Dir., at the American House, Hackettstown, for macadamizing a road through Mansfield and Washington Townships, a distance of 45,341 ft.

PITTSBURG, PA.—Bids will be received until 10 a. m., April 19, by the City Controller for grading, curbing and paving with sheet asphalt a portion of Excelsior St.; with block stone, Class "D," on Gettysburg, Laurel and Nicholson Sts.; with repressed vitrified brick, Class "A," on Hallock St. Joseph G. Armstrong is Dir. Pub. Wks.

ZELIENOPLE, PA.—Bids are asked by the Town Council until 8 p. m., April 20, for grading, paving and curbing Main St., from Mill St. to 300 ft. south of Culvert St. W. J. Meeder is Council Secy.

*FREDERICK, MD.—We are officially advised that bids were opened as follows on April 5 by the Mayor and Board of Aldermen for furnishing all material and labor for laying approximately 10,360 sq. yds. of vitrified fire clay brick paving on concrete foundation; furnishing and setting 5,060 lin. ft. of granite curb, and resetting 360 lin. ft. of old granite curb; also furnishing all material and labor for laying approximately 1,370 lin. ft. of 24-in. vitrified fire clay pipe sewer, 1,020 lin. ft. 6-in. house connections, 490 lin. ft. 12-in. catch-basin connections, and the construction of 19 catch-basins and four manholes: Sands & Key, Norfolk, Va., $30,145; E. McDonough, Myersville, Md., $40,667; The H. C. Brooks Co., Fairmont, W. Va., $32,455; Field, Barker & Underwood, Inc., and J. T. Neville, Philadelphia, Pa., $35,164; LeFevre & Edwards, Cumberland, Md., $3,042; Central Construction & Supply Co., Harrisburg, Pa., $33,790; F. B. Sweeten & Son, Atlantic City, N. J., $31,687; Harrison & Dean, Huntington, W. Va., $32,786; Coryell Construction Co., Williamsport, Pa., $34,507; R. M. Bibb, Roanoke, Va., $32,720; Coblentz & Klipp, Frederick, Md., $33,178; Wm. M. Elder, Baltimore, Md., $34,495; E. C. Crum, Frederick, Md., $33,612; Engineer's estimate, $33,586. Westinghouse, Church, Kerr & Co. are Engrs.

WASHINGTON, D. C.—Bids were received as follows on April 10, at the office of the Commissioners of the District of Columbia for grading 16th St., between Webster and Kennedy Sts.: George B. Mullen, 27.5 cts. per cu. yd.; George Hyman, 30 cts.; Harper & Voight, 46.5 cts.; James W. Bean, 29 cts.; E. G. Gummel, 35 cts.; L. M. Johnston, Arlington, Va., 74 cts.; Fisher & Carozza, Baltimore, 39 cts.

*WASHINGTON, D. C.—Bids will be received by the Commissioners of the District of Columbia until noon, April 24, for grading Massachusetts Ave., N. W., between Wisconsin Ave. and Nebraska Ave.

KEYSER, W. VA.—The city has awarded contract to the H. C. BROOKS CO., Fairmont, W. Va., for street paving. Estimated cost, $25,000. The HAMMOND FIRE BRICK CO., Fairmont, will furnish the brick.

WHEELING, W. VA.—Bids will be received by the Clerk of the Board of County Commissioners until 2 p. m., April 20, for paving about one mile of the River road. A. Bell is County Engr.

*GRAHAM, N. C.—Contract for building 46 miles of macadam road in Alamance County was awarded on April 5 by the County Commissioners to R. L. PETERS, of Knoxville, Tenn., at $190,000. Gilbert C. White is Engr., Durham, N. C.

DECATUR, GA.—DeKalb County will construct a macadam road from Decatur to Lathonia, a distance of about 22 miles.

ENSLEY, ALA.—The city has awarded contract to MARLARKY & CO., of Ensley, to pave Avenue F with tar pavement.

BIRMINGHAM, ALA.—The BARCLIFF CONSTRUCTION CO., of Birmingham, has been awarded contract for the construction of 5 3/10 miles of macadam road between Muiga and Elbow at $6,054.

COOKEVILLE, TENN.—Putnam County has voted $150,000 of bonds for road improvements.

CONCORD, KY.—Bids will be received until April 19 by the Concord & Manchester Turnpike Road Co, Lee Wells, Pres., for constructing four miles of turnpike.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., April 21, by the County Commissioners, William F. Black, Clk., for grading, draining and improving Independence and Parma Town Line Road No. 2 (Broadview), from Wick Road to Walling's Corners School House in Parma, Independence, Brecksville and Royalton Townships.

Bids are asked until 11 a. m., April 24, by the County Commissioners, William F. Black, Clk., for grading, draining and improving Ridge Road No. 2 from West Park Cemetery gates to Cleveland, and Wooster Turnpike in Brooklyn and Parma Townships.

COLUMBUS, OHIO.—Bids will be received until noon, May 5, by the Board of County Commissioners, John Scott, Clk., for furnishing material and macadamizing the National Road W., Franklin and Prairie Townships.

CINCINNATI, OHIO.—Bids are asked until noon, April 23, by the County Commissioners for the improvement of the Given road, 1,500 ft.

Bids are asked by the County Commissioners until noon, April 30, for the improvement of the Polk Run road. Fred Dreihs is Clk. Comrs.

ASHLAND, OHIO.—Bids are asked until 2 p. m., April 26, by C. D. Livingston, Clk. Montgomery Township, Ashland, for the improvement by macadamizing and piking about five miles of roads.

BOWLING GREEN, OHIO.—Bids were opened on March 29 by F. W. Toan, County Audr., for grading, draining and macadamizing the McDowell-Wilson Road, about two miles in length. The contract has been awarded to GEOGE E. MERCER, of Bowling Green.

JEFFERSON, OHIO.—Bids will be received by the Auditor of Ashtabula County, Jefferson, until 1 p. m., April 19, for macadamizing 2.48 miles of the east and west Center road in Colebrook Township.

CHARDON, OHIO.—Bids will be received by the County Commissioners of Geanga County, until 11 a. m., May 3, for furnishing the labor and material necessary for the improvement of "Big Hill," so-called, on Claridon St., in Chardon Village, by grading and draining. W. W. Hallis, County Audr.

MOUNT GILEAD, OHIO.—Bids are asked until 11 a. m., May 7, by the County Commissioners for the construction of the North Bloomfield stone road improvement No. 1, in North Bloomfield Township. W. C. McFarland is County Audr.

HARTFORD CITY, IND.—Contracts were awarded as follows on April 5 by the County Commissioners: For the Day road, two miles long, in Licking Township, to FRED SNYDER, at $8,250; for the Jackson road, to FRANK J. WRIGHT, at $9,236.

CRAWFORDSVILLE, IND.—Henry B. Hulet, City Clk., is asking for bids for the construction of the Mill Place boulevard and the improvement of several streets.

RUSHVILLE, IND.—The Commissioners of Rush County have let a contract to REED & THOMPSON, of Greensburg, for the construction of a macadam pike in Anderson Township, at $47,400; to B. W. GAUFF, for the construction of a gravel road in Washington Township, at $10,600; to HOLLORAN & HAVERSTICK, of Noblesville, for a road in Ripley Township, at $7,376; and for the construction of the Bunt bridge to the PAN-AMERICAN BRIDGE CO., of New Castle.

MONTICELLO, IND.—Bids are asked by the Commissioners of White County until noon, May 4, for the construction of the Henry Shook gravel road in Union Township. J. L. Ackerman is County Audr.

BLOOMFIELD, IND.—Bids are asked by the Commissioners of Greene County until 2 p. m., May 4, for the construction of the J. B. Young gravel road in Beech Creek Township, and also the Balton gravel road in Stockton Township. Peter M. Cook is County Audr.

QUINCY, ILL.—The contract for paving Kentucky St. with bricks, bids opened March 29, has been awarded to EIFF & SNERBING, of Quincy, at $14,375. J. H. Best is Mayor.

VERNON, IND.—Bids will be received by the Commissioners of Jennings County until 11 a. m., May 3, for the construction of 1¼ miles of pike road in Lovell Township, and also for the construction of 1½ miles of pike road in Geneva Township. T. L. Thomas is County Audr.

FOWLER, IND.—Bids are asked by the Commissioners of Benton County until April 30 for the construction of seven gravel roads and until May 7 for the construction of six miles of gravel road on line between Benton and Jasper Counties.

*GRAND RAPIDS, MICH.—Bids will be received by the Board of Public Works until April 22 for furnishing paving brick to the city, according to the specifications on file at the office of the Board. L. W. Anderson is City Engr.

MENOMINEE, WIS.—Contracts have been awarded as follows by the City Council: To CHRIST JOHNSON, of Oshkosh, for pavement in Broadway, at $19,270, and Marinette Ave., at $4,165; to JOHN STRIFFLER, of Marinette, for pavement on Grand Boulevard, at $7,240, and Ludington Ave., at $5,566.

RACINE, WIS.—Bids are asked until 10 a. m., April 17, by the Board of Public Works for paving Freeman Court.

SIOUX CITY, IOWA.—M. L. FLINN, of Sioux City, has been awarded contract by the city for 55,000 sq. yds. of brick block pavement on a 4-in. Portland concrete base, at $2.08 per sq. yd. Bids were opened March 30.

DES MOINES, IOWA.—Bids are asked by the City Council, until 10 a. m., April 21, for about 2,580 sq. yds. of sheet asphalt paving. George F. Poorman is City Clk.

LAWRENCE, KAN.—We are officially advised that the city has awarded contracts to HASKINS & RAMSEY, of Topeka, Kan., for paving with brick, two course, sand filler, New York St., 6,700 sq. yds. paving and 3,000 cu. yds. earth excavation, at $1.28 and 30 cts., respectively; Louisiana St., one course, sand filler, grout gutter, 2,500 sq. yds. and 500 cu. yds. excavation, at 86 cts. and 30 cts.; Penn St., one course, grout filler, 800 sq. yds. and 400 cu. yds. excavation, at 93 cts. and 30 cts. F. D. Brooks is City Clk.

GALVESTON, TEX.—The ed contract to the NORT DREDGING CO., San Fra filling streets between 43d and Aves. J and L, inclusive volves the placing of 34,980 ing at 16½ cts. per cu. yd V. E. Austin is Comr. of St Property.

GEORGETOWN, TEX.—Wil will expend about $100,000 constructing macadam roads.

BOSTON, TEX.—Bowie Co $250,000 of bonds for road i

*McALESTER, OKLA.—Bid ceived by J. M. Gannaway, 7.30 p. m., April 19, for app 319.3 sq. yds. of vitrified b 11,538 lin. ft. of combined cu 1,284 lin. ft. of 12-in. curbi yds. of excavation.

*ABERDEEN, WASH.—Bid ceived by P. F. Clark, City p. m., April 21, for furnish steam road roller. The suc will be required to deliver the successfully operate it for a hours on such streets as may at his own expense.

LOS ANGELES, CAL.—Eigh opened by the Supervisors on the improvement of El Monte the plans of the Highway Frank Gillespie was the lowes $22,906.

SALT LAKE CITY, UTAH.—I received until 8 p. m., April Board of Public Works, C. G Chn., for constructing cement sidewalks in sidewalk extension No. 142 and No. 2. Louis C. Kelsey is City Engr.

WALLACE, IDAHO.—Bids will be received until 8 p. m., April 19, by the City Council for furnishing material and constructing about 22,000 sq. yds. of asphalt pavement in local improvement district No. Engineer's estimate, $60,271. Henry M. Lancaster is City Engr.

## MANUFACTURING PLANTS.

*(* denotes that this work is advertised in Engineering News.)*

SPRINGFIELD, MASS.—The directors of the Glendale Elastic Fabric Co. are contemplating the erection of an addition to the plant. George Ashill is Gen. Mgr.

FALL RIVER, MASS.—The Barnard Mfg. Co. is having plans made for an addition to the north end of its No. 1 mill to provide for an increase in its carding department and other operations needed to balance up the plant and improve its production. Work on the addition will be begun in May. Cost, $100,000.

It is reported that the Algonquin Printing Co., which has acquired additional land and water rights near its works, intends to erect thereon a print cloth mill of 50,000 spindles or more.

LOWELL, MASS.—The U. S. Worsted Co. has planned to erect a new mill building at Division and Howe Sts., which will form part of the enlarged Musketaquid Mills. The construction of the new building will be in charge of Charles Griffin. It will be of brick, five stories high, 60 x 63 ft. It also is planned to add one story to the present plant. At present there are 75 looms in operation, but upon the completion of the new addition there will be 150 looms. Noted on March 25.

PAWTUCKET, R. I.—The Mackenzie-Walton Co., of Providence, is planning to build a manufacturing establishment in Pawtucket at the corner of Pawtucket Ave. and Geneva St. The concern manufactures seamless wire tubing for automobiles and other mechanical purposes, and intends to build a brick structure.

TALCVILLE, N. Y.—The Uniform Fibrous Talc Co., which is to erect mills here, will construct a concrete dam and power house and install power plant equipment. Plans are being prepared by Connell, Sykes & Connell, 90 West St., New York.

BUFFALO, N. Y.—The Frontier Iron Works has awarded contract to the JOSEPH METZ & SONS CO., 192 Elm St., for erection of 2-story brick and steel foundry and machine shop at Grant and Letchworth Sts. and New York Central R. R. at $30,000. Esenwein & Johnson, Ellicott Sq. Bldg., Buffalo, are Archs.

GATES, N. Y.—The American Laundry Machinery Co. have had plans prepared by Charles F. Crandall and John F. Strobel, Jr., Ellwanger & Barry Bldg., for a manufacturing plant which they will build at Gates, N. Y., a suburb of Rochester. The plant will comprise 1, 2 and 3-story buildings of reinforced concrete, brick and stone construction to cost $400,000.

NEW YORK, N. Y.—Revised plans have been filed by Maynicke & Franke, Archs., 298 Fifth Ave., for rebuilding the Second Ave. R. R. car barns on the block from 96th St. to 97th St., in compliance with the order of the Buildings Superintendent to put it in thorough repair. The projected improvements are to cost $150,000.

Plans have been filed for a 3-story factory, to be built for William Waldorf Astor, on the plot at 601 to 625 West 50th St., running through the block to 614 to 626 West 51st St., for Kohler & Campbell, as lessees, at a cost of $4,000. Ross & McNeil are Archs., 39 East 42d St.

BLOOMFIELD, N. J.—The American Concrete Steel Co., 11 Clinton St., Newark, has prepared plans and secured the contract to erect a 6-story, 100 x 125-ft. fireproof building on Orange St., near the Watsessing Station, for Scott & Bowne, Pearl and North Chambers Sts., New York, N. Y. A 2-story power house, 40 x 50 ft., is to be erected and a 200-HP. electric plant installed; cost of plant complete about $100,000.

SPRING CITY, PA.—J. V. Poley, Arch., 162 Second Ave., Royersford, Pa., advises us that he is preparing plans for underwear mills, four stories high, 50 x 140 ft., for

George W. ... ff, of the Century Knitting Mills, of Spr... City. The building will be of iron and ...el and reinforced concrete. It will be pr... ...ded with fireproof partitions, reinforced-c... ...crete floors, sprinklers, wire glass and f... doors and windows. Bids will be received ... once.

BALTIMO... MD.—The Furst Bros. Co., 213 West ... ...bridge street is said to be planning th... erection of a picture frame factory here to ... ...st $100,000. Max Nusbaum is Mgr.

HAGERS... WN, MD.—The Hagerstown Silk Co., ... ...illam Wingert, Pres., will double the ca... ...ity of its factory by the erection of a 4-... ...ory brick addition, 50 × 112 ft., to the nort... ...end of the works. The addition will have ... ...apacity of 60 looms. The foundation is u... ...er way and the addition will be completed ... ...s summer. When finished double the nu... ...ber of hands will be employed.

THOMA... LLE, N. C.—Charles C. Randleman, of Ra... ...dleman, N. C., will build a cotton mill at Thomasville, N. C. He will organize a c... ...mpany soon, capitalized at $100,000, to own and operate the plant. Construction of the buildings is expected to begin by the end of April. Plans and specifications will be given immediate attention. The intention is to install 5,000 spindles and 200 looms for the manufacture of chambrays and cheviots.

GREENVILLE, S. C.—The Woodside Cotton Mills Co. has awarded the contract to erect the buildings to the FISKE-CARTER CONSTRUCTION CO., of Worcester, Mass. About 25,000 ring spindles and 650 wide looms will be installed. It is stated that $500,000 in all will be expended.

LA FAYETTE, GA.—The Walker County Hosiery Mills of La Fayette, Ga., have awarded contract to ADAMS & SCHNEIDER, of Chattanooga, Tenn., for the erection of an addition, which, it is reported, will be equipped with sufficient machinery to double the company's present production of seamless hosiery. The mill now operates 90 knitting machines, dyeing and finishing equipment, etc., and employs 80 persons.

COLUMBUS, MISS.—S. J. Webb, of Minden, La., has decided to erect a compress here at a cost of $50,000. The plant will be built in North Columbus.

MERIDIAN, MISS.—The RUBUSH-DABBS CONSTRUCTION CO., of Meridian, has secured the contract for the construction of the Alden Knitting Mills of this city. It will be a 2-story, brick, costing something over $10,000.

URBANA, OHIO.—The Howard Paper Co., Maxwell Howard and Lucius Howard, both of Dayton, Pres. and Mgr., respectively, intends erecting a paper mill here. The cost of the building and equipment is to be about $250,000.

ASHTABULA, OHIO.—The Great Lakes Engineering Co., of Detroit, is to build a shipbuilding plant at Ashtabula. The plant is to cost more than $1,000,000 and to require a year in construction. Antonio Pessano is Pres.

SOUTH BEND, IND.—The directors of the Dodge Mfg. Co. have ordered plans for the erection of a 3-story brick addition to the factory.

INDIANAPOLIS, IND.—The Overland Automobile Co. is preparing to ask for bids for the erection of an automobile factory in this city. The company is operating four plants in this city and the purpose is to merge them into one large plant.

ELKHART, IND.—Definite plans have been ordered for the construction of an 8-stall brick and stone roundhouse in this city for the Cleveland, Cincinnati, Chicago & St. Louis Ry. Co., J. F. Deems, Gen. Supt. Motive Power, New York.

CLAYTON, IND.—The Jesse Bradley Co., of Mooresville, will soon ask for bids for the construction of a large brick and tile plant, including six permanent kilns, in this city.

ELIZABETHTOWN, IND.—A. R. Anderson, announces that he will erect an elevator on the site of the building recently destroyed by fire.

ELKHART, IND.—The American Wheel Co., A. E. Darling, Pres., announces that the company will erect a new factory in the Sterling-Hudson Division.

PORTLAND, IND.—The American Fence Co., recently incorporated, will establish and equip a factory in this city. C. H. Ayers, Nathan McCoy and O. S. Whitman are Dirs.

ALTON, ILL.—The Sparks Milling Co., of Alton, is reported to have decided to erect an elevator to cost about $50,000. H. B. Sparks is Pres., Alton.

LA CROSSE, WIS.—The La Crosse Plow Co. will erect a foundry building as an addition to its plant. Harry J. Hirchheimer is Vice-Pres.

LEAVENWORTH, KAN.—Bids are asked by R. V. Ladow, Supt. Prisons and Prisoners, Dept. of Justice, Washington, D. C., until 10 a. m., May 3, for furnishing and delivering at the U. S. penitentiary, Leavenworth, Kan., supplies for alterations and additions to the refrigerating plant.

LAS VEGAS, N. MEX.—The Dawson Fuel Co., whose plant was recently destroyed by fire, will be rebuilt at a cost of $15,000.

EL CENTRE, CAL.—The Imperial Valley Milk Co., which has had plans drawn for a milk canning and condensing plant, states that it will commence the construction of its buildings at once.

TORONTO, ONT.—Application has been made by the T. Eaton Co. for a permit to erect a 12-story factory on the north side of Trinity Sq., near Louisa St., at a cost of $250,000.

WINNIPEG, MAN.—The Globe Iron Works, of Wisconsin, will build a factory in Winnipeg to manufacture for Australia and New Zealand trade.

## MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

*MASONRY, TRESTLES, FOUNDATIONS, ETC.—Philadelphia, Pa.—See Philadelphia & Reading Ry. (under Railways).

DITCH.—La Fayette, Ind.—Bids are asked by A. G. Arnold, Supt., until 10 a. m., April 17, for construction of the Peter Retterath ditch.

*DREDGING.—Wilmington, Del.—Bids are asked until 10 a. m., May 7, by Capt. L. H. Rand, Corps Engrs., U. S. A., for dredging Tuckerton Creek, N. J.

CULVERT PIPE.—Mount Gilead, Ohio.—Bids were received on April 5 by the County Commissioners for furnishing iron culvert pipe for Morrow County for this year. Contract was let to the GALION IRON WORKS CO., Galion, Ohio. W. C. McFarland is County Audr.

DITCH.—Crown Point, Ind.—Contract for constructing ditch (bids opened April 3) has been awarded to JOHN HACK & SON, of Lowell, at 5.25 cts. per cu. yd. Total cost, $16,009.

*EXCAVATION.—Portland, Me.—Bids will be received by Lieut.-Col. Geo. A. Zinn, Corps Engrs., U. S. A., until May 8 for rock excavation in Kennebec River at Lovejoys Narrows.

VESSEL REPAIRS.—Cincinnati, Ohio.—Bids are asked until 2 p. m., April 20, by Col. William T. Rossell, Corps Engrs., U. S. A., Cincinnati, for replating hull of U. S. dredge "Oswego."

DITCH.—Princeton, Ind.—Contract for the construction of the Lost Creek drainage system in Center Township has been awarded to J. J. BRUMBAUGH, of Elkhart, Ind. Estimated cost, $18,000.

DREDGING.—Richmond, Ind.—CHARLES BEEKER & SON, of Lafayette, have secured contract for dredging West River between Perry and Dalton Townships for a distance of 1½ miles, $18,200.

*DREDGING.—Philadelphia, Pa.—Bids are asked until noon, May 10, by Maj. Herbert Deakyne, Corps Engrs., U. S. A., Witherspoon Bldg., Philadelphia, for dredging the Delaware River in Section 1.

JETTY WORK.—San Francisco, Cal.—Bids are asked until 11 a. m., April 22, by Maj. George McK. Williamson, Q. M., U. S. A., for constructing four stone jetties at the Presidio of San Francisco, Cal.

DOCK.—Chicago, Ill.—Bids will be received until April 16 by John J. Hanberg, Comr. Pub. Wks., for constructing a dock on the south side of the north Branch Chicago River at the foot of North Sangamon St.

*CEMENT.—Wheeling, W. Va.—Bids are asked until 11 a. m., May 14, by Capt. F. W. Alstaetter, Corps Engrs., U. S. A., for furnishing and delivering about 13,000 bbls. of American Portland cement for Dam No. 19, Ohio River.

WALL.—Grand Rapids, Mich.—Bids are asked by the Board of Public Works until 8 p. m., April 22, for constructing dock line wall along the west dock line of and excavating in Grand River between Fulton St. and Wealthy Ave.

WHARF.—Prince Rupert, B. C.—Bids will be received until April 27 by the Minister of Public Works, Victoria, for constructing a reinforced concrete wharf, with timber superstructure; bids to be submitted for wharf complete, inclusive and exclusive of slips.

*ROCK REMOVAL.—New York, N. Y.—One bid only was received on March 26 by Lt.-Col. S. W. Roessler, Corps Engrs., U. S. A., Army Bldg., New York, for removal of rock in North River off Pier A, New York Harbor. It was for $37,450 and was submitted by R. G. Packard Co., 130 Pearl St., New York.

DRAIN.—Farmersville, Ill.—Separate Bids will be received until April 24 by the Commissioners of Drainage District No. 2, Town of Bois D'Arc, Jas. Clarke, Chn., at Farmersville, for furnishing, hauling and laying 20,245 ft. of from 8 to 22-in. vitrified saltglazed drain tile. J. W. Dappert, Engr., Taylorville.

'CHANNEL, BRIDGES.—Chicago, Ill.—Bids will be received by I. J. Bryan, Clerk of the Sanitary District of Chicago, at Room 1500, American Trust Bldg., Chicago, Ill., until noon, May 5, for excavating a channel, designated as Section 7 of the North Shore Channel, and for performing certain collateral bridge work. Robert R. McCormick is Pres. of Bd. of Trustees.

SOLDIERS' MONUMENT.—Elkhart, Ind.—The Soldiers' and Sailors' Association of this city is planning to erect a monument here. Bids will be asked as soon as design and plans are approved.

LIMESTONE.—New York, N. Y.—Bids are asked by Department of Parks until 3 p. m., April 22, for furnishing and delivering limestone and limestone screenings; Hudson River road gravel or equal in parks and parkways, Boroughs of Brooklyn and Queens, and for furnishing and delivering crushed trap rock and track rock screenings in parkways, Boro. of Brooklyn.

AUTOMOBILES.—Hartford, Conn.—Bids are asked by the Board of Contract and Supply, James P. Berry, Secy., until 11 a. m., April 19, for gasoline automobile for the fire department. The total number to be bought is not to exceed three and the total cost not to exceed approximately $3,000 f. o. b. Hartford. (Bidders are also asked to state what allowance will be made if a Ford runabout, Model R, should be turned over in part payment.)

## EXAMINATIONS.

LABORATORY ASSISTANT.—New York, N. Y.—The Municipal Civil Service Commission, 299 Broadway, New York, will receive applications until 4 p. m., April 26 (extension of time), for the position of Laboratory Assistant (male and female). The examination will be held on May 17 at 10 a. m. There is one vacancy. Salary, $600 to $900 a year. Minimum age, 18 years. F. A. Spencer, Secy.

APPRAISERS, ETC.—Albany, N. Y.—The State Civil Service Commission will hold examinations on May 1 for the following positions: Appraisers of Street Railway Property, Public Service Comn., First District, $1,200 to $1,800; Assistant Bacteriologist, State Dept. of Health, $1,500; Estimate Clerk, State Dept. of Highways, $1,500; Superintendent, Fire Island State Park, $1,200 and house; Technical Assistant, State Dept. of Agriculture, $800 to $1,200. The last day for filing applications for these positions is April 24. Full information and application form for any of these examinations may be obtained from the State Civil Service Commission, Albany, N. Y. The Commission requests the use of a postal card in applying for forms.

## CONTRACT PRICES.

AQUEDUCT.—New York, N. Y.—Bids were received by the Board of Water Supply on March 30, for Contract 25, for the construction of Croton and Chadeayne tunnels, Kitchawan and Millwood North cut-and-cover, and a portion of Croton cut-and-cover, in the Croton Division of the Catskill Aqueduct, in the town of Yorktown and New Castle, Westchester County. Itemized bids were as follows: (A) CHAS. W. BLAKESLEE & SONS, 58 Waverly St., New Haven, Conn. (awarded contract); Booth & Flynn, Ltd., 1942 Forbes St., Pittsburg, Pa.; (C) The M. A. Talbott Co., 1110 American Bldg., Baltimore, Md.; MacArthur Bros. Co., 11 Pine St., New York; (E) Bradley Contracting Co., 1 Madison Ave., New York; (F) American Pipe & Construction Co., 112 North Broad St., Philadelphia, Pa.; (G) J. H. Gray Co., 2019 Fuller Bldg., New York; (H) Foye-Root Co., 20 Broad St., New York; (I) John J. Hopper, 215 West 125th St., New York; (J) average bid.

| | (A) | (B) | (C) | (D) | (E) | (F) | (G) | (H) | (I) | (J) |
|---|---|---|---|---|---|---|---|---|---|---|
| 57,000 cu. yds. removal of top-soil | $0.40 | $0.45 | $0.40 | $.55 | $0.50 | $0.40 | $0.50 | $0.75 | $0.74 | $0.52 |
| 30,000 cu. yds. open-cut excavation, Sta. 214 + 50 to Sta. 225, Type A | .60 | .80 | .70 | .65 | .95 | .60 | 1.00 | .90 | 1.11 | .81 |
| 124,000 cu. yds. open-cut excavation, Sta. 225 to Sta. 277, Type A | .55 | .80 | .75 | .54 | .85 | 1.25 | .80 | .90 | .83 | .81 |
| 10,000 cu. yds. open-cut excavation, Sta. 277 to Sta. 285, Type B | .50 | .80 | .90 | .45 | .80 | .65 | .75 | .90 | .72 | .72 |
| 41,000 cu. yds. open-cut excavation, Sta. 285 to Sta. 290, Type A | .55 | .80 | 1.00 | .60 | .80 | .65 | 1.00 | 1.00 | 1.62 | .89 |
| 58,000 cu. yds. open-cut excavation, Sta. 297 to Sta. 325, Type A | 1.00 | 1.00 | 1.50 | 1.15 | 1.10 | 1.65 | 1.15 | 1.25 | 1.74 | 1.28 |
| 22,000 cu. yds. open-cut excavation, Sta. 325 to Sta. 340, Type A | 1.30 | 1.40 | 1.25 | 1.80 | 1.30 | 1.20 | 1.40 | 1.25 | 2.56 | 1.49 |
| 29,000 cu. yds. open-cut excavation, Sta. 340 to Sta. 365, Type B | 1.00 | 1.40 | 1.25 | 1.35 | 1.10 | 1.25 | 1.00 | 1.50 | 1.58 | 1.27 |
| 24,000 cu. yds. open-cut excavation, Sta. 365 to Sta. 384, Type A | 1.20 | 1.40 | 1.25 | 1.65 | 1.40 | 1.75 | 1.40 | 1.50 | 2.50 | 1.56 |
| 16,000 cu. yds. refilling and embanking, Sta. 214 + 50 to Sta. 225 | .35 | .30 | .30 | .34 | .50 | .30 | .30 | .40 | .45 | .36 |
| 45,000 cu. yds. refilling and embanking, Sta. 255 to Sta. 277 | .35 | .30 | .25 | .34 | .50 | .30 | .30 | .40 | .45 | .35 |
| 7,000 cu. yds. refilling and embanking, Sta. 277 to Sta. 285 | .35 | .30 | .25 | .34 | .50 | .30 | .30 | .40 | .45 | .35 |
| 11,000 cu. yds. refilling and embanking, Sta. 285 to Sta. 290 | .35 | .30 | .40 | .34 | .50 | .30 | .30 | .40 | .45 | .37 |
| 37,000 cu. yds. refilling and embanking, Sta. 297 to Sta. 325 | .35 | .30 | .30 | .34 | .50 | .30 | .30 | .40 | .76 | .39 |
| 24,000 cu. yds. refilling and embanking, Sta. 325 to Sta. 340 | .40 | .30 | .50 | .40 | .50 | .30 | .30 | .40 | .76 | .43 |
| 30,000 cu. yds. refilling and embanking, Sta. 340 to Sta. 365 | .40 | .30 | .40 | .40 | .50 | .30 | .30 | .40 | .76 | .42 |
| 25,000 cu. yds. refilling and embanking, Sta. 365 to Sta. 384 | .40 | .30 | .40 | .40 | .50 | .30 | .30 | .40 | .76 | .42 |
| 30,000 cu. yds. surface dressing and grassing | .45 | .40 | .60 | .50 | .60 | .40 | .90 | .40 | .63 | .51 |
| 59,000 cu. qds. concrete masonry for aqueduct in open cut and on embankment | 5.10 | 5.50 | 5.00 | 5.25 | 5.00 | 5.25 | 5.50 | 5.00 | 4.90 | 5.17 |
| 1,500 cu. yds. concrete masonry for culverts, retaining-walls, etc. | 5.35 | 5.00 | 7.00 | 6.00 | 7.00 | 6.00 | 7.00 | 6.00 | 7.86 | 6.36 |
| 100 cu. yds. rubble masonry and paving in mortar | 5.00 | 5.00 | 5.00 | 5.00 | 4.50 | 4.00 | 5.00 | 5.00 | 5.82 | 4.92 |
| 600 cu. yds. dry rubble masonry and paving | 4.00 | 3.00 | 3.00 | 4.00 | 4.00 | 3.00 | 4.00 | 3.00 | 5.82 | 3.76 |
| 6,000 cu. yds. crushed stone, gravel and material for filters | 1.80 | 1.50 | 1.50 | 2.00 | 1.50 | 1.50 | 2.25 | 2.50 | 3.85 | 2.02 |
| 300 cu. yds. surfacing macadam roads | 2.50 | 3.00 | 2.00 | 1.70 | 3.50 | 2.50 | 3.00 | 3.00 | 6.55 | 3.08 |
| 4 sluice-gates | 100.00 | 100.00 | 150.00 | 100.00 | 100.00 | 100.00 | 125.00 | 150.00 | 330.00 | 139.44 |
| 2 tons cast-iron pipes and special pipe castings | 100.00 | 80.00 | 125.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 300.00 | 122.78 |
| 3,000 lin. ft. vitrified pipe | 1.35 | .60 | 1.50 | 1.35 | 1.00 | 1.50 | 1.50 | 1.60 | 1.60 | 1.33 |
| 60 M. ft. B. M. timber and lumber | 50.00 | 50.00 | 60.00 | 65.00 | 50.00 | 60.00 | 60.00 | 60.00 | 63.00 | 57.56 |
| 5 testing portions of aqueduct | 850.00 | 1,000.00 | 1,000.00 | 1,000.00 | 500.00 | 500.00 | 1,000.00 | 500.00 | 1,175.00 | 836.11 |
| 1,000 lin. ft. testing portions of aqueduct exceeding 200 ft. in length | 2.75 | 2.00 | 2.00 | 2.70 | 2.00 | 1.00 | 1.50 | 3.00 | 5.82 | 2.53 |
| 40,000 cu. yds. rock excavation in tunnel | 5.95 | 5.50 | 5.25 | 6.00 | 5.00 | 6.00 | 6.30 | 6.00 | 7.30 | 5.92 |
| 500 sq. yds. additional trimming in tunnel | 5.00 | 3.00 | 4.00 | 5.50 | 6.00 | 7.00 | 5.00 | 6.00 | 5.00 | 5.17 |
| 400 cu. yds. earth excavation in tunnel | 4.25 | 3.50 | 6.00 | 6.00 | 4.00 | 7.00 | 4.00 | 5.00 | 4.70 | 4.94 |
| 100 cu. yds. enlargement of tunnel section in earth | 10.00 | 10.00 | 15.00 | 15.00 | 6.00 | 10.00 | 20.00 | 7.00 | 44.00 | 15.22 |
| 50 M. ft. B. M. permanent timbering in tunnel | 60.00 | 60.00 | 70.00 | 70.00 | 50.00 | 70.00 | 50.00 | 70.00 | 90.00 | 65.56 |
| 50 M. ft. B. M. temporary timbering in tunnel | 50.00 | 50.00 | 60.00 | 55.00 | 50.00 | 70.00 | 45.00 | 70.00 | 90.00 | 60.00 |
| 3,700 lin. ft. tunnel drainage | 1.25 | 1.00 | 1.50 | 1.25 | 2.00 | 1.00 | 1.50 | 3.00 | 1.90 | 1.60 |
| 3,700 lin. ft. forms for masonry lining in tunnel | 3.00 | 2.50 | 3.70 | 5.00 | 4.00 | 3.00 | 4.00 | 3.50 | 3.80 | 3.61 |
| 11,000 cu. yds. concrete masonry in tunnel | 5.65 | 5.50 | 5.50 | 5.25 | 6.00 | 5.10 | 6.60 | 5.50 | 6.00 | 5.68 |
| 500 cu. yds. excess concrete masonry in tunnel | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |
| 50 cu. yds. brick masonry in tunnel | 14.00 | 15.00 | 20.00 | 20.00 | 25.00 | 15.00 | 20.00 | 20.00 | 26.00 | 19.44 |
| 1,500 lin. ft. dry packing | 2.50 | 2.00 | 2.00 | 3.50 | 3.00 | 2.50 | 2.50 | 2.50 | 2.90 | 2.60 |
| 150 lin. ft. drilling holes in rock or masonry | .70 | .40 | 1.00 | .50 | .50 | .60 | 1.00 | .50 | 2.20 | .82 |
| 400 lin. ft. steel pipes for grouting | .70 | .20 | .50 | .40 | .50 | .30 | .40 | .30 | .50 | .42 |
| 97,000 lbs. Portland cement | 1.68 | 1.60 | 1.80 | 1.45 | 1.60 | 1.60 | 1.56 | 1.70 | 2.30 | 1.70 |
| 100 cu. yds. grout of Portland cement | 6.00 | 5.00 | 8.00 | 8.00 | 4.00 | 10.00 | 8.00 | 7.00 | 14.55 | 7.84 |
| 32,000 lin. ft. stone boundary walls | 1.15 | .75 | 1.00 | 1.10 | 1.00 | .80 | 1.00 | 1.25 | 1.46 | 1.06 |
| 8,000 lin. ft. fences and guard-rails | .50 | .30 | .30 | .30 | .40 | .30 | .40 | .50 | .38 | .37 |
| 50,000 lbs. steel for reinforcing concrete | .04 | .03 | .05 | .05 | .04 | .04 | .04 | .05 | .04 | .04¼ |
| 5,000 lbs. wrought iron, cast iron and steel | .09 | .06 | .10 | .10 | .10 | .08 | .08 | .10 | .15 | .09¼ |
| 500 lbs. bronze | .85 | .80 | .75 | 1.00 | 1.00 | .85 | .65 | .75 | .58 | .80 |
| 4,000 lbs. galvanising | .04 | .03 | .12 | .04 | .01 | .05 | .05 | .10 | .07½ | .05¾ |
| 52 month medical and surgical practitioners | 200.00 | 150.00 | 100.00 | 250.00 | 200.00 | 100.00 | 150.00 | 200.00 | 330.00 | 186.66 |
| 52 month sanitary services | 225.00 | 400.00 | 100.00 | 250.00 | 300.00 | 150.00 | 200.00 | 200.00 | 255.00 | 231.11 |
| Cleaning up (lump sum) | 3,000.00 | 3,000.00 | 3,000.00 | 4,000.00 | 3,000.00 | 3,000.00 | 2,500.00 | 3,000.00 | 14,500.00 | 4,333.33 |
| Total | $1,269,830 | $1,303,720 | $1,320,906 | $1,322,630 | $1,334,015 | $1,377,085 | $1,383,455 | $1,418,370 | $1,735,429 | |

Time: 52 months. Bond required: $300,000.

**For other Proposal Advertisements see pages 47, 48, 52, 54, of Advertisements and Construction News page 126.**

## PAVING.

Sidney, O.

Sealed bids will be received by the Board of Public Service of the City of Sidney, State of Ohio, at the office of said Board until twelve o'clock noon, Monday, May 3d, 1909, for furnishing the necessary labor and materials for paving with brick the following streets and avenues in the City of Sidney, Ohio:

West Avenue from the intersection of Court Street to the main track of the Big Four Division of the New York Central Railway; Water Street from the intersection of Ohio Avenue to the intersection of Main Ave.; South Street from the intersection of Ohio Avenue to the intersection of Main Avenue; Main Avenue from the intersection of Water Street to and including the intersection of Queen Street; Court Street from the west end of the bridge over the Miami and Erie Canal Feeder to a point nine (9) feet west of the east line of Franklin Avenue; North Street from the intersection of Miami Avenue to the main track of the Big Four Division of the New York Central Railway; and Miami Avenue from the north line of Poplar Street to the main track of the Big Four Division of the New York Central Railway according to plans and specifications on file in said office. Each bid must contain the full name of every person or company interested in the same, and be accompanied by a New York or Chicago draft in the sum of $1,200, to the satisfaction of the Board, as a guarantee that if the bid is accepted a contract will be entered into and its performance promptly secured. Should any bid be rejected such draft will be forthwith returned to the bidder; and should any bid be accepted such draft will be returned upon the proper execution and securing of the contract.

Bidders are required to use the printed forms, which will be furnished on application.

The right is reserved to reject any and all bids.

By order of the Board of Public Service.

W. L. HEISER, Clerk.

Sidney, Ohio, April 8th, 1909.

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THE SANITARY DISTRICT OF CHICAGO.

TO CONTRACTORS.

Sealed proposals addressed to the Board of Trustees of The Sanitary District of Chicago, and indorsed "Proposals for Furnishing Metal Work for the Superstructures of Highway Bridges Across the North Shore Channel," will be received by the Clerk of The Sanitary District of Chicago at the offices of the said Sanitary District on the 15th floor of the American Trust Building, Chicago, Illinois, until 12 M. (Standard time) of Wednesday, the 28th day of April, 1909, and will be publicly opened by the Board of Trustees at a meeting to be held on that day, or at the first meeting thereafter.

The work for which said tenders are invited consists of the fabrication and delivery of all metal work for the superstructures of Five (5) Steel Highway Bridges across the North Shore Channel of The Sanitary District of Chicago in the Township of Niles and the City of Chicago, in Cook County, State of Illinois. Said bridges are to be located at the following named streets, to-wit:

At Howard Avenue in the Township of Niles.

At Devon Avenue in the Township of Niles and City of Chicago.

At Peterson Avenue in the City of Chicago.

At Foster Avenue in the City of Chicago.

At Argyle Street in the City of Chicago.

All of said five (5) bridges on which tenders are invited, are to be fabricated and delivered in accordance with plans, specifications and contract form furnished by The Sanitary District of Chicago, which plans, specifications and contract form may be obtained upon application at the said office of the said District.

The two (2) bridges at Howard Avenue and Devon Avenue are similar in construction and will be awarded under one contract and a certified check or cash to the amount of Three Hundred ($300.00) —Dollars shall be deposited with each bid on said two (2) bridges.

The two (2) bridges at Peterson Avenue and Foster Avenue are similar in construction and will be awarded under one contract and a certified check to the amount of Five Hundred ($500.00) Dollars shall be deposited with each bid on said two (2) bridges.

The bids upon the bridge at Argyle Street shall be considered as separate and distinct from the other bids and said bridge may be let under a separate contract. A certified check or cash to the amount of One Hundred and Fifty ($150.00) Dollars shall be deposited with each bid upon said bridge.

Alternative bids may be made upon all of said bridges, based on the provision that all bridges shall be awarded to the one bidder. In such case no deposit will be required other than the sums hereinabove required to be deposited with the bids for the respective bridges.

All certified checks must be drawn upon some responsible bank doing business in the City of Chicago and shall be made payable to The Sanitary District of Chicago. Said certified checks or cash deposited with bids will be held by said Sanitary District until all of the respective bids for each of said bridges have been canvassed and the contracts awarded and signed.

The return of said check or cash deposited with the bid on any bridge or bridges, to the bidder to whom the contract for such bridge or bridges shall be awarded, is conditioned upon the appearance of said bidder within ten (10) days after receiving notice of such award and executing a contract, or contracts, with said Sanitary District for the work so awarded, and giving a bond, or bonds, satisfactory to said Board of Trustees, for the faithful performance of such contract or contracts, to the following amounts.

Three Thousand ($3,000.00) Dollars for the two (2) bridges at Howard Avenue and Devon Avenue.

Five Thousand ($5,000.00) Dollars for the two (2) bridges at Peterson Avenue and Foster Avenue.

One Thousand Five Hundred ($1,500.00) Dollars for the bridge at Argyle Street.

A deposit of ten ($10.00) dollars will be required for each set of plans and specifications taken out, said sum of ten ($10.00) dollars to be refunded by said Sanitary District upon the return of said plans and specifications to said District, provided they are returned on or before May 20, 1909.

All bids must be upon blank forms furnished by the Sanitary District.

Bidders are required to state in their bids their individual names and places of business in full.

The said Board of Trustees reserves the right to reject any and all bids.

THE SANITARY DISTRICT OF CHICAGO,
By ROBERT R. McCORMICK,
President of Its Board of Trustees.

Attest:
I. J. BRYAN, Clerk.

Chicago, April 15, 1909.

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## REINFORCED CONCRETE RESERVOIR.

Ridgway, Penna.

Sealed proposals will be received by The Borough of Ridgway, addressed to S. S. C. Chilcote, Secretary, until 6 o'clock p. m., April 27th, 1909, for performing all labor and furnishing all material necessary for the construction of a reinforced concrete reservoir of 1,500,000 gallons capacity.

All bids must be upon blank forms and must be accompanied by a certified check for Eight Hundred Dollars ($800.00), made payable to The Borough of Ridgway.

Plans, specifications and blank forms of proposals can be examined at the office of the Borough Secretary or obtained by applying in person at the office of F. W. Ward, Borough Engineer.

The right is reserved to reject any or all bids.

S. S. C. CHILCOTE,
Borough Secretary.

## CONCRETE BRIDGE.

MAUMEE RIVER BRIDGE, TOLEDO, O.

Sealed proposals will be received by the Board of Public Service until Twelve (12) o'clock noon, Standard time, July 1st, 1909, for furnishing the necessary labor and material for the construction of a reinforced concrete arch bridge (excepting lift draw), together with the necessary foundations, abutments, piers, approaches and any and all other necessary parts thereof, over the Maumee River, in the line of Cherry Street on the west side of Main Street on the east side of said river, from a point where the northwest line of Water Street intersects Cherry Street to a point in the center line of Main Street which is eighty feet southeast of the easterly harbor line of the Maumee River. Said Bridge shall be constructed of Concrete and Steel, and in accordance with the detailed plans, profiles and specifications therefor on file in the office of the Board of Public Service.

Proposals will also be considered on alternative designs under conditions set forth in Section 43 of said specifications.

Each proposal or bid must contain the full name of every person or company interested in the same, and must be accompanied by a sufficient bond or a certified check on some solvent bank, in the sum of Fifty Thousand Dollars, as a guarantee that if the bid is accepted, a contract will be entered into, and its performance properly secured. The Contract Bond will be Twenty-five per centum (25%) of the amount of the contract.

Should any bid be rejected, such check will be forthwith returned to the bidder, and should any bid be accepted, such check will be returned upon the proper execution and securing of the contract. The Board of Public Service reserves the right to reject any and all bids. Payment will be made as stipulated in the form of contract for the performance of the above work, and which form of contract is on file in the office of said Board of Public Service. All bids must be written in ink, and the price for each item must be written out in full as well as in figures. All labor and material necessary for the improvement aforesaid shall be bid on separately, with the price thereof, and written in as aforesaid.

Bidders must use the printed forms, as none other will be received. Bidders will be required to endorse their names on the outside of the envelope containing their proposal, and what the bid is for, the same to be filed with the Secretary of the Board of Public Service. Plans and specifications can be seen at the office of the Chief Engineer of the Board of Public Service, and same may be obtained upon terms to be ascertained by applying at the office of said Board, 223 Valentine Building, Toledo, Ohio.

The City of Toledo, Ohio.
By order of the Board of Public Service.
REYNOLD VOIT,
Secretary.

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## WATER-WORKS.

Hugo, Okla.

Notice is hereby given that the City Council of Hugo, Okla., will, until 8 p. m., May 4, 1909, receive bids for machinery, material and labor necessary to complete a system of water-works for Hugo, Okla.

Plans and specifications are on file with the City Clerk, also with Hiram Phillips, Consulting Engineer, No. 645 Frisco Bldg., St. Louis, Mo.

Copies will be forwarded by either of the above upon receipt of $3.00.

R. L. JONES,
Mayor.

W. T. ECHOLS,
City Clerk.

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PROPOSALS FOR 12 MOVABLE TOWERS, with the necessary side and back forms. Sealed proposals will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 a. m., May 12, 1909, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and general information relating to this Circular (No. 505) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; Custom-House, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Ang... Cal.; Baltimore, Md.; Philadelphi... Pa.; Pittsburg, Pa.; Boston, Mas... Buffalo, N. Y.; Cleveland, Ohio; Cin... ati, Ohio; Chicago, Ill.; St. Louis, ... Detroit, Mich.; Milwaukee, Wis... St. Paul, Minn.; Chattanooga, Ten... Louisville, Ky.; Mobile, Ala., and G... on, Tex.; Commercial Club, Kansa... ity, Mo.; Chamber of Commerce, Qu... Ill., and Chamber of Commerce a... Board of Trade, Tacoma, Wash.—F... BOGGS, Captain, Corps of Engine... U. S. A., General Purchasing Officer.


## Situations Wanted

CONTRACTOR'S OFFICE MA... 28) desires position; ten years' experien... in railroad construction and quarry w... bookkeeping, ing, purchasing, superint... nce, etc.; references furnished. Addr... S. B. 15," Engineering News, New Yo... 15-3t

## Situations Open

WANTED—First class mecha... engineer and draftsman; one accusto... to valve work; state age, experience... alary expected. Address "P. B. 15," Engineering News, New York. 15-2t

WANTED—At once, a first class ... ewer foreman; one who knows how to handle running sand and water, to advantage; state reference and experience and salary expected. Address "R. B. 15," Engineering News, New York. 15-1t

## Miscellaneous Wants

CIVIL ENGINEER, graduate; experience in municipal work, general contracting and hydraulic engineering, desires to meet young man of experience along similar lines with view to engaging in engineering and contracting business in New York and vicinity. Address "W. A. 14," Engineering News, New York. 15-1t

## FOR SALE

FOR SALE.

**Traveling Derrick**

boom, 18 × 18 × 74 feet long, Oregon pine, good order, ready for erection. Cheap. GEO. E. LOVETT (owner), 22 Court St., Brooklyn. 15-1t

**If You Cannot Locate the Manufacturer**

of needed equipment, or if you desire catalogs and prices on equipment, we will be glad to make your wants known to the leading manufacturers of the material wanted.

The assistance of our

**READERS' WANT DEPARTMENT**

is at your service.

**Engineering News**
220 Broadway New York